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A Case of Monstrosity.

Presented to the Editors of the Medical and Physical Journal by THOMAS CROXALL CAM, *Surgeon in Bath, and late Senior Surgeon to the Hereford Infirmary.*

[With an Engraving.]

IN April laſt I was deſired to viſit a Mrs. F. of this city. She had pains which appeared to be thoſe of labour, but was ignorant of her ſituation, from having had a diſcharge of blood from the uterus, more or leſs, for fourteen weeks, which weakened her very much, but did not confine her till the day before I ſaw her, when the hæmorrhage was increaſed by her pains.

I examined the abdomen, and diſcovered a large circumſcribed tumour, much elevated, but not yielding to the touch, on the left ſide, and in feel reſembling a retained placenta. During a pain I made myſelf acquainted with the ſtate of the uterus, and found the os tincæ, which I could juſt reach with my finger, extremely rigid, and very little dilated. The patient had been attended the day before by an Accoucheur, who gave her aſtringents with a view of checking the diſcharge; but being ſatisfied the veſſels were not in a ſtate to contract, and pains remaining, I thought it moſt adviſable to aſſiſt Nature in the work ſhe was labouring to complete, by endeavouring to remove the rigidity of the os tincæ. Relaxing means were adminiſtered, and in the courſe of the day, a male monſter was expelled by natural efforts, which I judged to be ſix months old, from the placenta being two-thirds of its uſual dimenſions at the lateſt period of pregnancy, but the fœtus reduced in bulk by the long continued drain.

In this curious caſe of Monſtroſity the bones of the cranium were wanting.

There was not any brain, or the leaſt veſtige of medulla oblongata. A ragged membranous open pouch coming from the ſcalp, hung down on the back.

The orbitar proceſſes, and that part which forms the naſal, were perfect, and alſo the maſtoid and zygomatic.

The face was regularly ſhaped, but the eyes ſeemed to ſtand on the top of the forehead from the failure of the cranium.

A portion of the membranous part of the placenta was un[illegible] to the fcalp above the left eye. The funis was not m[illegible] three inches in length. There was no clavicula, fc[illegible] hu- merus, or any arm on the left fide. The dorfal vert[illegible] were much diftorted. There was a deficiency of the per[illegible]al co- vering of the epigaftric region of the abdomen; the liver and fmall inteftines protruded from the cavity on the left fide, and the large ones were diftended with meconium. The right [illegible] was inverted. The features, the extremities, and parts of ge- neration, were large in proportion to the fize of the monfter. The mother could not attribute this malconformation to any particular caufe. She was greatly debilitated for a fortnight from her delivery, but foon after recovered her ftrength by the affiftance of the bark and a nutritious diet.

Bath, March 3, 1802. T. C. CAM.

To the Editors of the Medical and Phyfical Journal.

GENTLEMEN,

I Have to requeft that you will give in your next Journal a place to the above letter to Doctor Jenner, which was una- nimoufly agreed to at a meeting of the Suffolk Society of Sur- geons, held this day.

Golden Lion, Ipfwich, I am, &c.
April, 19, 1802. THO. BAYLEY, in the Chair.

TO DR. JENNER.

SIR,

WE the underfigned Members of the Suffolk Society of Surgeons, having had ample opportunity of experiencing the fafety and efficacy of the Vaccine Inoculation, in preventing Small Pox, introduced, and now happily brought into general ufe, by your Difcovery, founded upon accurate and patiently conducted experiments, think it our duty to congratulate you, and to return you our grateful thanks for the invaluable ad- vantages that the community at large have derived from your labours; which, in the courfe of a few years, promife entirely to eradicate the dangerous and loathfome difeafe of Small Pox.

We have the honor to be, Sir,
Your moft obedient and moft humble fervants,

Golden Lion, Ipfwich, EDWARD B. BECK, Prefident.
April 19, 1802. WILLIAM SPACK, Vice-Prefident.

Nathaniel Bucke,	Jn. Morgan
Thomas Bayley,	Robt. Fitch,
Robert Abbot,	Richard Freeman
William Hamilton, M. D.	George D. Lynn
Alexander Bartlet	Nathl. Moore
W. Leedes	John Clubbe, M. D.
George Stebbing	John Bucke.

To Dr. BRADLEY.

Dear Sir,

I Have within the laſt month been called upon to open five perſons, who have died of a diſeaſe which had been but little ſuſpected, and which appears to be a variety of the *Catarrhus Suffocativus*. As theſe caſes occurred ſo nearly together, I fear the complaint may be epidemic, and therefore feel it my duty to communicate to practitioners the reſult of the Diſſections through the medium of your uſeful Journal.

Two of theſe caſes were in adults, and three in young children. The firſt was that of a young man, about twenty years of age, who was under the care of my friend, Mr. Reid, of Chelſea. The diſeaſe at the beginning, Mr. Reid informs me, had every appearance of an attack of mild Typhus. On the two firſt days there was no affection of the cheſt whatever; on the third day the patient complained of pain in his ſide, to which a bliſter was immediately applied. The ſymptoms of general debility were ſuch as to forbid the uſe of the lancet. On the morning of the fourth day he ſeemed relieved, but in the evening great difficulty of breathing came on; he was, however, able to walk out of his room as late as nine o'clock. After this he went to bed, but in the middle of the night he awoke, complaining of a ſenſe of ſuffocation, became exceedingly irritable and paſſionate, and died at three o'clock in the morning.

We examined the body about ſeven hours after death, and on opening the cheſt, it was obſerved that the lungs did not collapſe; we therefore expected to find them adhering to the pleura, but this was in no degree the caſe. The lungs were entirely free from any mark of inflammation, or alteration of ſtructure; nor was any fluid effuſed into either ſide of the thorax, or into the cavity of the pericardium. On laying bare the trachea, and making an inciſion into it, an immenſe quantity of thin mucous guſhed out, with which both it and the bronchiæ were

were completely filled; a confiderable quantity was alfo preffed from the air-cells of the lungs. The inner membrane of the trachea and its branches appeared much more vafcular than ufual; there was no effufion of coagulable lymph upon it, but a few flocculi of that fubftance were obferved in a part of the mucus which was contained in the fubdivifions of the bronchiæ. The head was opened, and the dura mater was found at one part fomewhat inflamed. The abdominal vifcera were all in a healthy ftate.

The fecond patient was between thirty and forty, and was likewife feen by Mr. Reid, but not till about ten days after the commencement of his indifpofition. At that time he appeared extremely languid, had a fmall weak pulfe, fome difficulty of breathing, and rigors. A large blifter was applied to his cheft, and an emetic, and other fuitable medicines exhibited. He went on for a week without any material alteration in the fymptoms. On the eighth day of Mr. R's attendance, his breathing became more oppreffed, and he complained more of cough, and pain over the whole of his cheft. As his debility did not appear greater than it had been, fix ounces of blood were taken away. In the evening he became more reftlefs, and fomewhat delirious. About five the next morning he awoke in a violent fit of delirium, and died, app rently fuffocated, in about half an hour.

The lungs in this cafe did not collapfe when expofed, but they were not in the leaft inflamed, or difeafed in their ftructure. The trachea and its branches were completely filled with the fame kind of mucus as in the former cafe; fome was found in the air-cells. The membrane lining the trachea had alfo the fame appearance of increafed vafcularity. The head was opened, but no mark of difeafe was difcovered in it, or within the cavity of the abdomen.

The two next cafes were in children about four or five years of age. I was informed of both that they had flight pectoral affections for a week or ten days, which had excited no particular alarm, but were followed at length with a degree of ftupor, which gave rife to a fufpicion that mifchief had arifen within the head; and they were both examined after death at the requeft both of the parents and the medical gentlemen who had vifited them, under that impreffion. Both of them died convulfed. There was no difeafe whatever within the head of either; but in both, the trachea and its branches were filled with thin mucus, and its inner membrane was flightly inflamed. The lungs collapfed but very inconfiderably when the thorax was laid open, and yet very little mucus was contained in the air cells.

The

The fifth and last case I had an opportunity of seeing before death, as the patient was the child of a relation of my own. It was about two years old, and had been attacked, rather severely, with the measles, for which it had been very properly treated by the apothecary of the family. The fourth day after the eruption I called at the house, and found the mother distressed with a suspicion that the child was labouring under water in the head, as it had become stupid, was laying with its eyes half open, and took no notice of any thing. But on examining the eye, the pupil contracted properly, and the child, when roused, appeared perfectly sensible. The next day these symptoms continued; its countenance was bloated but florid; the breathing was short, but not with that shortness which arises from inflammation, and is produced by a sense of pain on expanding the chest, but which seemed as though the chest did not contract properly in expiration. It coughed with a rattling noise, but not frequently or violently: Its pulse was very frequent, and feeble, but not at all hard. Having so recently examined the former cases, I suspected this to be like them, and recommended the exhibition of oxymel scillæ, with vinum antimonii, to excite some nausea, and that in the intermediate times light nourishment and white wine whey should be given. These remedies were employed, and a blister applied over the sternum. The medicine did not produce vomiting at first, but appeared to relieve the breathing for a time; the next day, however, it became more laborious, and the medicine was given in larger doses, and more frequently, so as to produce repeated vomitings, by which a very great quantity of mucus was thrown up, and the breath was the following day so much relieved, that we thought there was every reason to hope the child would recover. It sat up, took notice of its play-things, and took nourishment willingly. But on the eighth day it became extremely languid, and died, after a short fit, apparently exhausted, on the morning of the ninth.

On opening the chest the lungs did not collapse, but were free from every appearance of inflammation or adhesion. The bronchiæ were filled with mucus, and the trachea undoubtedly had been so; for its inner membrane was exceedingly red, much more so than in either of the former cases; and the mucus in the bronchiæ had the same appearance as in them, with flocculi of coagulable lymph intermixed in it. In this case I conclude the mucus was for the most part discharged by vomiting in consequence of the medicines that were given; but the air-cells had not recovered their elasticity, which accounts for some shortness of breathing continuing afterward. The child, however, would in all probability have recovered, had

had this been the only disease; but the measles having preceded it, the strength was borne down, the powers of Nature exhausted, and the feeble frame was unable to resume sufficient vigour to repair the injury it had received.

Whether the disease I have now described is to be considered as the true *Catarrhus Suffocativus*, I leave you to decide. It might perhaps, without much impropriety, be considered as a *Coryza Trachealis*; for it was not attended in either of the cases with those general inflammatory symptoms which usually attend Catarrh; but seems to have consisted in only as much inflammatory action on the inner surface of the trachea as would augment its secretion of mucus, (just as a Coryza does that of Schneider's membrane) without producing any considerable degree of febrile action in the system. The principal constitutional symptoms came on late, and appear to have been rather symptoms of irritation and debility, than of inflammation, and were probably in a great measure the effect of the disease, and of the imperfect degree in which the blood received oxygen from the air. As long, however, as the absorbents took up the mucus, and the air could get a passage into the lungs, their functions went on; and as there was not inflammation enough to produce much pain, the symptoms excited but little alarm. But when the secretion of mucus augmented so as to exceed the action of the absorbents, the trachea became filled, and life was presently extinguished.

I shall be happy if my having troubled you with this Paper should be the means of bringing forward any farther information on the subject, or of calling the attention of practitioners to the attack of an insidious but very formidable disease.

South Audley Street. I remain, &c.
April 20, 1802. T. CHEVALIER.

A Case of Cancer, successfully treated by Arsenic.

To the EDITORS of the MEDICAL and PHYSICAL JOURNAL.

Gentlemen,

THE following Case has nothing particular in it, only as affording an additional evidence to that already laid before the public by other professional men, of the power which Arsenic sometimes possesses in curing an open Cancer. I shall content myself

myſelf with ſimply ſtating the Caſe, and making two remarks, in order that, if you think them of ſufficient importance to inſert in your uſeful Miſcellany, they may not occupy too much room in it.

Mary Millaird, between forty and fifty years of age, the wife of a carpet-weaver in this town, was admitted to the Kidderminſter Diſpenſary on the 13th of January laſt. She had been near two years afflicted with a cancerous tumour, ſituated near the middle of the fore-arm, on the outſide. She informed me, that from her birth ſhe had had a ſmall mole-ſpot in that place, which ſhe one day unfortunately knocked againſt a door and made it bleed, from which time it grew ſore; and when I firſt ſaw it, it was as big and as round as a large muſhroom. Its ſurface was very irregular; it bled upon the ſlighteſt touch, was extremely painful, and the ſmell of it intolerably offenſive. From the abſorption of matter, there was an enlarged gland, about two inches above the ulcer, three in the axilla, and ſeveral along the ſide of the neck. The advice of different practitioners had afforded no relief. I immediately ſprinkled the ulcer over with finely powdered arſenic. In about a week the whole tumour ſloughed off, and left a clean ſurface at the bottom. I then dreſſed the arm daily with ung. baſilic. nigr. It granulated very kindly, and is now perfectly healed. The poor woman expreſſes great happineſs in being freed from ſo loathſome a ſore.

I remark, in the firſt place, that this Caſe was clearly, in its origin, entirely local, and that in conſequence of the blow the part put on the ſpecific action, which induced a cancer. Secondly, it is to be lamented that the arſenic was not applied before the glandular ſwellings took place, as, in that caſe, a complete cure would have been obtained; but now further miſchief may hereafter enſue, although the primary local diſeaſe is quite removed.

I am, &c.

Kidderminster, April 15, 1802. GEO. CUSTANCE.

P. S. Permit me to embrace this opportunity of thanking Mr. Reece for his obliging compliance with my requeſt of a Drawing of the Tooth Inſtrument he recommended. Your Readers will probably recollect that my doubts were reſpecting its power of raiſing a Tooth *perpendicularly*, and not as to any other *improvement* it might be upon former Inſtruments.

To

To Dr. BRADLEY.

SIR,

I Shall take the liberty of troubling you with a few Remarks upon Quackery, a ſubject which has already drawn forth ſome valuable Obſervations from your Correſpondents, and one that deſerves ſtill more to be noticed. It is, however, to a different ſpecies of Quackery from that noticed in the Medical Journal to which I wiſh at preſent to draw your attention, as it appears to me to be of a more ſerious nature than the ſale of quack medicines, and I apprehend it to be a growing evil.

The circumſtance which I allude to, is that of private families *quacking* themſelves, and preſuming to uſe the moſt active remedies in the Materia Medica, with as little ſcruple or caution as, a few years ago, the good old ladies would have adminiſtered a treacle poſſet or an infuſion of roſemary. Bark, antimony, calomel, and opium, are now become domeſtic remedies. It is by no means uncommon to hear a mother obſerve, with much ſelf-complacency, that her child was indiſpoſed with a cold, or reſtleſs from dentition, but that the diſorder had yielded to half a dozen drops of laudanum: Or ſhe obſerves, that ſhe has herſelf been affected with pain at her ſtomach, or, as the more learned term it, with ſpaſm, but thirty drops of laudanum had reſcued her from the moſt imminent danger. To ſuch an height has the uſe of this dangerous medicine riſen, that in a ſea-port town of great trade in the north of England, it conſtitutes at preſent one of the moſt faſhionable drams among the middling and lower claſſes. A delicate woman who would be ſhocked at the idea of taking ſpirits, does not ſcruple to ſwallow occaſionally, a doſe of laudanum to drive away the effects of ennui; and it is very generally the practice where children are committed to the care of hired nurſes, to keep them in a conſtant doze by means of opiates, qualified indeed as medicines to diſpel wind and *nouriſh* the bowels. Whence have theſe evils originated? I anſwer, from medical men. It is ſaid of the late excellent Dr. Fothergill, that he regretted having uſed ſpirituous tinctures ſo frequently in his practice, as he feared, that in many inſtances he had inſenſibly paved the way to ſpirit drinking; but the unfortunate victims to the more deſtructive habit of taking opium, have greater reaſon to blame thoſe who have indiſcreetly taught them this practice. I do not mean to reprobate the uſe of opium, one of the greateſt bleſſings which Heaven has beſtowed upon wretched mortals; it is the preſent indiſcriminate and improper uſe of it that I condemn; the practice, now too common of truſting this dangerous re-

medy

medy to the discretion of the patient, or, what is worse, to that of an officious nurse.

The first wish that a medical man has, is to cure his patient, the next, and equally important, is to acquire his confidence. When pain ceases, the sufferer has leisure to contemplate the idol whom he so lately worshipped; he finds him, perhaps, ill informed, and, like the frogs in the fable, in the case of the good king Log, his admiration ceases, or is changed into contempt. This has not escaped the notice of the weaker and more cunning part of the profession; and to avoid detection, it has introduced amongst them the custom, so justly ridiculed by dramatic writers, of retailing the scandal of the day, or of prattling about the contents of their shops. Others of the profession, who might adorn the most important stations, (and such men are to be found in every branch of it) have committed the same error, though from an opposite cause, from a frankness of temper and a wish to avoid every appearance of craft. Treatises upon domestic medicine, and other popular works of this kind, have greatly increased the mischief, without diffusing one salutary ray of information; for medicine cannot be learned from books, much less from a single volume which professes to cure the long list of diseases 'to which mortality is heir.' The latter source of evil is probably irremediable, for popularity has charms: Men, from various motives, are fond of commencing authors; and happily, the freedom of the press, though teeming with mischief, still continues. But let regular practitioners endeavour to obviate these ill effects by becoming more guarded in their general mode of conduct; and let them be as cautious in trusting these active and important remedies to the discretion of the vulgar, as they would be of committing a sharp instrument to an infant or an idiot.

The practice which now too commonly prevails among physicians, of sending, or even of allowing their prescriptions to be sent to a druggist, is fraught with much harm; and must in time oblige apothecaries, in self-defence, to arm themselves with doctorial panoply. For, notwithstanding the *charm* of a diploma, patients in general will prefer an old and respectable apothecary to a young and inexperienced doctor. It would be well also if apothecaries, with a view to check these alarming innovations, would avoid purchasing their medicines of such druggists as thus attempt to undermine them. A physician who acts with propriety will *order* his prescription to be sent to an apothecary, in order to support an useful, and I may venture to add, a respectable branch of the profession; it will also prevent the apothecary from looking with jealousy upon the physician, and at the same time enable him to charge more moderately

rately for his medicines. It may not be an improper caution to add, that the prescription ought to remain with the apothecary, and he ought to be responsible for its safety. The patient has no right to the prescription, except in the case of undertaking a journey, and of being liable to relapses of the complaint. This caution does not arise from selfishness, it is founded on prudence, and medical men have unjustly suffered by their too great readiness to communicate their mode of practice. In numberless instances, the usual practice of returning the prescription to the patient has given origin to a new quack medicine. Besides, when patients know the composition of remedies, they not unfrequently object to some of the Ingredients, or fancy they will do no good. Mankind are fond of mystery; and it is more congenial with a sick man's mind to expect relief from the occult qualities of a medicine than from its sensible virtues. Hence, in a great measure, arises the success of many boasted secret remedies, which instantly lose their efficacy when compounded at an apothecary's shop. This has lately been extremely well pointed out by the ingenious and learned Dr. Haygarth, in his exposure of a Reverend Quack and his metal skewers.

Let patients have every satisfaction given them respecting the nature and probable termination of their complaints; let them also be told the *general plan* of treatment; but it is unnecessary to point out the particular remedies to be employed. How very readily *idle people* fall into the mode of treating trifling complaints without regular advice, and how ready they are to deprive a medical man of his just emoluments, the following instance will prove; and I have no doubt that many of your readers will recognize similar characters within their circle of practice. Mr. Robert Booby was bred to the sea, which he quitted for the enviable life of a country squire; but having taken more care to load his coffers than to ballast his mind, he became a prey to ennui. As he had not a capacity for any other employment, he turned his thoughts to medicine. A parlour closet was converted into an apothecary's shop, and he began to dispense medicines to the poor of the village. When his family was sick, his surgeon, a man of eminence, and of a frank unsuspecting temper, not only answered all his questions, but shewed him the mode of compounding his medicines, which Mr. Booby, under pretence of saving trouble by sending for them, but in reality to save expence, occasionally prepared from his closet. In this manner they proceeded for some years, until Mr. Booby, at length, made up all the medicines himself, or, to shew his gratitude, sent for them from a druggist. Thus the emolument of the surgeon was confined

fined to a trifling ſum, barely adequate to pay for his horſe for occaſional viſits; in ſhort, he ſaw his error when too late. It may perhaps be a ſubject of congratulation, that we have at preſent fewer *old women* in the profeſſion than formerly; yet we ought to treat with due reverence thoſe old *ladies* who amuſe themſelves with culling of ſimples for the good of their poor neighbours. I have one in my neighbourhood, who does wonders with her black and green ſalves (the green and black baſilicon) which ſhe diſpenſes in muſcle ſhells, and ſuppoſes to be invaluable ſecrets. Her ardor for the profeſſion can only excite a ſmile, for I believe ſhe does no harm. This, however, cannot be ſaid of another claſs, called bone-ſetters, who are real peſts to ſociety, and whoſe ignorance can only be equalled by their daring impudence. Of their rough and improper modes of practice, almoſt every county-hoſpital can ſhew melancholy inſtances. If conſiſtent with national freedom, the interference of the Legiſlature appears in no one inſtance to be more requiſite than in ſuppreſſing this noxious tribe. Some of your correſpondents may be able to give a ſketch, which cannot fail to be amuſing, of one of theſe people, lately deceaſed, and very generally known in Lancaſhire by the name of the Whitworth doctor.*

Medical men, as guardians of the public health, ſhould conſider it as a duty incumbent upon them to expoſe the dangerous errors of theſe people, and to detect the tricks of quacks in general. An excellent example has been placed before them by a lady of high rank, the ducheſs of Montroſe, who condeſcended lately, in the public papers, to contradict the aſſertion of an advertiſing female in Long Acre, London, who preſumed to place her Grace's name at the head of a moſt reſpectable liſt of witneſſes (all probably in like manner forged) to the efficacy of her Noſtrum.

I ſhall no further treſpaſs upon your patience than to obſerve, that Patent Medicines are a diſgrace to the Legiſlature; they impoſe upon the vulgar, who imagine that the wiſdom of government has thought it proper to reward the merit of the inventor by a public mark of favor; and perſons who ſcruple to pay a trifling bill to an apothecary, throw away ten times that ſum upon a vile quack medicine. But while we ſpeak with contempt of ſuch men as Broad-hum and Sillyman, who *chouſe* a credulous public with their botanic ſyrup and cordial balm, why do we paſs over in ſilence thoſe who apoſtatize from amongſt

* It was very common for this perſon to give his druggiſt an order for a ton of Glauber Salts, and *three ſtone* weight of Opium.

amongſt ourſelves? Ought they not to have ſome mark of contempt, or, at leaſt, of diſapprobation attached to them? The Chineſe apoſtate Ching-ſi, ſo celebrated of late for his brown and yellow lozenges, vends at an enormous price jalap and calomel, which country practitioners daily uſe, and have uſed before he was born, and yet calls himſelf a regular practitioner. But we find a more dignified delinquent, no leſs than a Fellow of the College, accuſed of a ſimilar offence in a late elegant and intereſting work, entitled, 'Reports on the Diſeaſes in London', by a phyſician, whoſe great erudition, extenſive practical knowledge, and ſtill more, his active benevolence, render him an ornament to the profeſſion.

MEDICUS

P. S. The Editors of the Phyſical Journal formerly promiſed to notice, occaſionally, the compoſition of Quack remedies; a promiſe which, except in one or two inſtances, appears to have been forgotten: For though ſuch Traſh are ſcarcely worth notice, yet ſome good may accrue from their compoſition being expoſed.

To Dr. BRADLEY.

Sir,

As the following inſtance of Quack credulity came to my knowledge only two days ago, I will thank you, *if approved of*, to inſert it in the Paper on Quackery, ſigned Medicus, either as a Note, or otherwiſe.

Leſt, however, you ſuſpect ſome improper conduct in this anonymous Communication, ſimilar to what I am about to mention, I ſhall ſign my name, which, however, on the preſent ſubject, I do not wiſh to have publiſhed. The character of Mr. Robert Booby, in the paper alluded to, you may perhaps object to, as not knowing whether it be a real name or fictitious; but had it been the real name, the individual is ſo obſcure, and lives in ſo obſcure a part of the country, that it would be ſcarcely poſſible to diſcover the prototype.

The following may ſerve as an inſtance of the credit due to Quack Advertiſements: "About a year and a half ago an advertiſement appeared in the public papers, ſigned, to the beſt of my recollection, Richard Maſtyn, Hedley Hall, Northumberland, ſtating, that the writer's daughter had been for a long time in a moſt deplorable ſtate, for which the moſt eminent of the Faculty in Newcaſtle had been conſulted in vain. Very fortunately

fortunately, however, the father was induced to try the celebrated brown and yellow worm lozenges, which, wonderful to relate, reſtored the child to perfect health in a ſhort time. The affectionate father, delighted with having a darling child ſnatched from the brink of the grave, of courſe conſidered it as a duty to make the cure thus public.

This handſome acknowledgement gratified the patentee ſo highly, that it was foiſted into moſt of the public papers for a length of time, until the writer declared he was heartily ſick with ſeeing it.

Unfortunately, however, this flaming epiſtle proved to be merely a *waggiſh trick*, intended to tickle the ear of this diſciple of Con-fu-tſi; a ſpecies of luxury which the ingenious writer knew was ſo peculiarly grateful to his countrymen. Thus, a juvenile frolic, one of thoſe giddy tricks which we are all too apt to commit en gäieté de cœur, was eagerly caught at, and ſerved to place, very unintentionally, one of the brighteſt gems in the cap of this powerful Mandarin. Were medical men to be more ſtrict in their reſearches, they might eaſily diſcover ſeveral ſuch pious frauds, and by degrees "ſtrip the daw of his borrowed plumes."

South Shields, April 11, 1802.

To the Editors of the Medical and Phyſical Journal.

GENTLEMEN,

IT is much to be lamented, that of all the liberal profeſſions the conduct of the members of the Medical Profeſſion to each other is, perhaps, the moſt illiberal; and that this often ariſes from an improper interference in each other's department, I have no doubt. Surely, Phyſicians would act a more dignified and politic part, not to aſſume the functions of the Surgeon, Apothecary, or Nurſe; nor the Apothecary to ape the Phyſician; each confining himſelf to his proper ſphere, would avoid much ſchiſm among its members.

The Controverſy upon Apoplexy between Dr. Langſlow and Mr. Crowfoot, led me to theſe reflections. It would appear, you heſitated before you admitted it into your Journal, as being of too perſonal a nature. Had you rejected it, the loſs to the medical world would have been, in my opinion, very great, and in a point of view not connected with Apoplexy, nor noticed by any of your Correſpondents; I mean, as affording the moſt

most perfect example of its kind perhaps on record, to the Medical Profession, how they ought to conduct themselves to each other, by copying the moderation of the Physician, and avoiding the petulance of the Apothecary.

As I differ in some important points of theory and practice from both those Champions, I may, without presumption, be allowed to enter the lists. I would set out with observing, that the question respecting the propriety or impropriety of administering Emetics in Apoplexy, has been taken up too generally; there are cases occurring daily, where they may be administered with propriety, and others in which it would be highly improper; therefore, no certain rule can, nor general rule ought, to be laid down. It is in the discrimination of diseases, and the application of general principles to particular cases, that one man's practice so much excels another's.

I believe it is as generally an admitted axiom as any in Physic, that in all cases of true Apoplexy and Hemiplegy, there is extravasation or effusion of blood or lymph upon the brain. This was the opinion of that great luminary Mr. John Hunter, whose authority no man of science will be disposed to doubt. Taking this then for granted, I believe all theory is against the administration of Emetics, and all practical experience, under certain circumstances, for them.

The circumstances I refer to are, where patients have an attack after a full meal; I contend, *that after topical bleeding* the speediest mode of relief is evacuating the stomach by an emetic, or exciting vomiting by tickling the throat with a feather.

It has been triumphantly asked by Dr. Langslow, how a *foul* stomach, and by others, how the stomach could be any cause of Apoplexy? Or how Dr. Fothergill could advise Emetics, so contrary to all reason and true science?' All this is easily answered and explained, viz. from the daily occurrence of this disease almost immediately after a full meal, as lately happened to the Archbishop of Milan, at the famous Consulta at Lyons. Now, admitting this, it will naturally follow, that the state of the stomach is a very frequent cause of Apoplexy; and I conceive, the mode in which it acts is chiefly by its distension, thereby impeding the free return of the blood from the head: Not from any *foulness* of stomach, nor quality of food, but merely from quantity. I myself almost daily experience the apoplectic effect of a full meal, after dinner, by an almost irresistible propensity to sleep. Now, that there is a particular determination of blood to the head, at those times, and that the stomach is the cause of that, no man can reasonably doubt. I think it probable, nervous sympathy may be conjoined with distension of stomach to produce this effect: Therefore, I conceive

ceive that evacuating the ſtomach by vomitting, after topical bleeding, will take off the preſſure, by giving more room, admit the free return of the blood from the head, and be attended with leſs danger, than waiting for the more ſlow mode of evacuations by the inteſtines, from theoretical ideas of the hazard of determining the blood to the head by Emetics. In other words, that the certain relief often produced by them, more than counterbalances any ſuppoſed danger from their adminiſtration.

It has been petulantly aſked, if the cauſe of the diſeaſe be in the ſtomach, whence ariſes the inſtant relief often procured by bleeding? I would anſwer this query, by referring to a fact well known to farmers, viz. that they loſe many valuable cows annually, by turning them into freſh clover, or other pecculent food; this cauſes violent diſtenſion of the ſtomach and bowels by the extrication of the fixed air, and is by them termed *being blown*; the common idea is, that they burſt before death; I conceive that to be erroneous, and more probable, that they die apoplectic. The uſual mode of relief, in this part of the country, is to ſtab them with a knife, in the flank, in order to evacuate the air. Some years ago I had a fine cow *blown*, and thought it a better mode to introduce a trocar in the flank, as the canula could eaſily be kept open, and in the other way the lips of the wound ſoon cloſe; it had the deſired effect, but ſhe recovered from the effects of it very ſlowly. I mentioned the circumſtance to a practical farmer of the firſt information; he aſſured me, if I had had her bled, it would have anſwered better, and that he had ſaved ſix of his own cows one morning by bleeding them inſtantly; of the others, ſome were dead, and dying, before he reached them.

Dr. Moſsman, page 206 of your laſt Journal, ſays, "The "ſchool diviſion of this diſeaſe into ſanguineous and ſerous, "is very generally and juſtly exploded, and were it true would "admit of no beneficial application in practice." This I beg leave to deny in toto; that there may be, and is, lymphatic plethora, as well as venal or arterial, every day's experience convinces me, and that the treatment ought to be different, I am well ſatisfied. I have now three caſes of Hemiplegy, that commenced with apoplectic attacks; they are all far advanced in life, and from their pale, ſallow complexions, you would conclude there was not an ounce of blood in the whole ſyſtem: Surely, they require a different mode of treatment, and the diſeaſe aroſe from a different cauſe than ſanguineous plethora. The mode of relief that I purſued with moſt ſucceſs has been to adminiſter briſk cathartics in the firſt inſtance, then the ſtimulating and diuretic plan, ſucceeded by tonics. The topical application of bliſters to the whole

head

head, in both ſpecies of Apoplexy, ought not I think to be diſpenſed with. If ever the ſcience of Anatomy ſhould arrive at that degree of perfection, to enable us to open lymphatics as we do veins or arteries, that would be the moſt ſcientific mode of relief.

Dr. Langſlow dwells much on ſerous or lymphatice *exudation*, as a cauſe of Apoplexy; I conceive exudation can never cauſe Apoplexy, and that both ſpecies is always cauſed by *rupture* of veſſels; becauſe it is the *ſuddeneſs* of the extravaſation that deſtroys the functions of the brain. In caſes of exudation it is productive of a different diſeaſe, hydrocephalus, and often the accumulation of lymph is ten times greater than in Apoplexy before it cauſes death, on account of its *gradual* production. Thoſe obſervations will apply to Dr. Langſlow's reaſoning upon his ſuppoſed caſe of Apoplexy in your laſt Number. I admired his ſplendid diſplay of fine writing at the outſet of this Controverſy; but it gives me pain to add, that I think there is a great *falling off* in matter and manner, in your laſt Journal, page 273.

It muſt ſtrike every Practitioner, that *general* blood-letting is carried to too great an extent; I refer particularly to a caſe of Mr. Wilkinſon's, page 144, where he took a large baſon full of blood, which evidently laid the foundation of his death, by bringing on dropſy. Likewiſe one of Mr. Davies, page 76, which evidently haſtened the patient's death. It would ſurely be a ſafer mode of practice, in all caſes of Apoplexy, to bleed as near the ſeat of the diſeaſe as poſſible, viz. by cupping, opening the temporal artery, or the jugular vein. In caſes of ſuch urgency, I think the application of leeches, in the firſt inſtance, too ſlow a mode of relief.

Without making any perſonal applications, it muſt be obvious, that many of your Correſpondents are too fond of *ſplitting* Apoplexies into nervous, puerperal, &c. In ſhort, if ſuch a mode of diviſion be encouraged, I ſhould not wonder to ſee every caſe of ſudden death attributed to Apoplexy. It reminds me of a celebrated Divine, in the laſt century, who undertook to explain the miracle of our SAVIOUR's caſting a *legion* of devils out of a man poſſeſſed, which entered into a *herd* of ſwine. His firſt care was to aſcertain the number of men a legion conſiſted of; he found it varied at different times of the Roman Republic; he took the mean number: His next ſtudy was to find the number of ſwine in a herd; he then calculated the proportion of devils to ſwine, and found that there were about two devils and a half, or two devils and three-quarters, to each ſwine. He was ever after called Dr. *Split-Devil.*

LANCELOT HARE,
Member of the Royal College of Surgeons, London.
Southminster, Essex, Mar. 9, 1802.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

IF you think this Paper worth inserting in your useful Journal, it is much at your service. From your's, &c.

Yarmouth, Feb. 3, 1802. T. GIRDLESTONE, M. D.

THOSE who are acquainted with the opinions and practice which prevailed in the time of Sylvius Deleboe, and Van Helmont, know that these authors, and many of their contemporaries, depended on a mercurial salivation for the cure of dropsies. From Gremb's *Arbor Integra, et Ruinosa Hominis*, a work printed in 1657, and reckoned by Ettmuller to be the book which best explains the doctrines of Van Helmont, the following extracts are taken.

"Intentio curandi hydropem ex Helmontio habetur. 1ma. ut devia qualitas, quæ renem a ligatura et abdomen ab aqua liberat, dematur, tum ren errorem cognoscet et absorbet ad se laticem: itaque hydropem est serum renum pertinacem solvere, prout solvere cruorem coagulatum est solvere causam occasionalem; hinc hydropem non juvant hydrogoga sed mercurius."

. . . .

"Usque dum salivatio oris superveniat." p. 118, 119, De defectibus Hepatis.

"Asthma inducit hydropis quædam species, ubi hepar supra modum excrescit, diaphragma et pulmones comprimet, aliquando reliquæ partes tabe consumantur, aliquando tamen præter excrescentiam hepatis etiam venæ pulmonum turgent. Helmontius scribit cresitivam illam vim per mercurium enecandam esse." P. 157, De Defectibus Pulmonum.

I have been led to quote the above passages because the late ingenious Dr. Withering has supposed, that the hydrothorax, when unaccompanied with ascites may be generally cured by the diuretic effects of digitalis. But I have seen many exceptions to this remark, and witnessed many cases of hydrothorax, where the morbid effects of digitalis had nearly taken away the life of the patient without relieving the difficulty of breathing; and where this symptom was as much occasioned by the action of the diaphragm being impeded by a diseased growth of the liver, as by the effusion about the lungs or heart. To attempt the cure of such a case by digitalis, is only to exhaust the strength of the patient so far by attacking the effects rather than the cause of his disease, as to leave him often afterwards too feeble

feeble to hope for any remedy from other medicines. In such cases, I presume, the practice recommended by Van Helmont, &c. ought always to be tried before any portion of digitalis be given. And in every case of hydrothorax there will probably be less waste of strength if a slight ptyalism be induced by mercury before any of the digitalis be administered; because then doses of five or ten drops of the tincture of this medicine will often effect, in two or three days, what double the quantity taken for six or seven days could not do, if no mercury had first pervaded the habit.

More than a year ago, a gentleman upwards of ninety-two years of age, and whose habits throughout life had been directed by the most exact regard to temperance in eating, drinking, and exercise, became the patient of a respectable practitioner in this town for an anasarca and hydrothorax: The digitalis was given to him in tincture, and persisted in for several days, after a nausea, loss of spirits and strength had been induced, without producing any diuretic effects or diminution of the dropsical symptoms.

It was not without difficulty that he was afterwards prevailed on to return to the trial of any sort of medicine. He at last submitted to the swallowing of small doses of calomel and opium every six hours. These medicines, in a week or ten days, diminished the anasarcous symptoms, and by a perseverance in them, with the addition of bark and steel, he re-established his health, and is now perfectly well.

The patient of another respectable practitioner, a lady considerably above eighty years of age, and whose habits had been equally temperate as those of the preceding patient, laboured under anasarca and hydrothorax. The digitalis was given to her, and it constantly produced diuretic effects; but it increased the anasarcous symptoms till a purple blush came all over the upper and lower extremities, and the perseverance in this medicine increased the irritability of the mind to such a degree, that she became delirious. By leaving off the digitalis the delirium in three or four days subsided. But neither bark with mineral acids, cream of tartar, nor any other medicine, being able to prevent the escape of the red parts of the blood through the exhalents, she did not live above ten days after the discontinuance of the digitalis. I do not know whether it has occurred to other practitioners, but many cases have come under my observation, where the digitalis seemed to have increased very much the irritability of the mind. An elderly lady with hydrothorax and anasarca, who was cured by only forty-five drops of the tincture of digitalis in doses of five drops, for four days after the last dose remained perfectly insane. She continued several

ſeveral months without any return of the hydrothorax; but the horror with which the effects of the digitalis had inſpired her againſt that medicine, made her prefer the re-appearance of her diſeaſe to her remedy, or the trial of any other medicine, till ſhe died.

It is of great conſequence in giving ſo powerful a medicine as digitalis to aged people, that not a ſingle doſe be repeated after the breathing has been ſufficiently relieved. I have ſeen this medicine continued till a ſort of paralytic tremor had been induced over almoſt all the muſcles of the body, either through inattention or the belief that the diuretic effects had leſſened; and where the leſſening of the quantity of the urine was only becauſe the anaſarcous effuſion was nearly all abſorbed and diſcharged; and where bark, ſteel, or zinc, with ſmall doſes of opium, might ſooner have been given with the beſt effects. By attention to theſe points I think I have been able to prolong the lives of ſome patients with hydrothorax to an unuſual length. The following is the caſe of my firſt patient in this part of the country with this diſeaſe. Ten years ago a very diſtinguiſhed ſcholar, became my patient for an aſcites, hydrothorax, hydrops pericardii, and anaſarca. He was given mercury till a ſlight ſalivation was induced, then ſquills till the aſcites, hydrothorax, and anaſarca diſappeared; and afterwards with bark and ſteel his ſtrength was recovered. He has ſince ſuffered two or three returns of the hydrothorax and anaſarca, which have been each time taken away by inducing a ſlight ptyaliſm by mercury, and afterwards giving a few drops of the tincture of digitalis for a day or two before bark and tonics were reſumed. He is now cheerful in the eighty-firſt year of his age, breathing ſeemingly better than he did ten years ago: But as the ſlender interrupted pulſe which he had when I firſt attended him, never was entirely taken away, I preſume that an hydrops pericardii to a certain degree has always remained.

During the whole ten years he has never been permitted to go above a week or ten days without taking, over night, a grain or two of calomel.

The more urgent ſymptoms of ſyphilis being blended with other complaints, have probably led to the uſe of mercury in many diſeaſes. A few of the following remarks which I have met with in turning over the pages of a variety of medical authors, may be new to ſome readers.

Poterius obſerves, that thoſe who have rubbed in mercurial ointment, or thoſe who dig in the mercurial mines, are ſcarcely ever afflicted with fevers. He, Piens, Ballonius, Willis, Hartman, Ettmuller, and many others, cured all obſtinate intermittents by a mercurial ſalivation, as Sir George Baker did an intermittent

intermittent patient who laboured under ſiphilis. The catholicon of Van Helmont in fevers was a ſecret preparation of mercury; and Dolæus, the friend of our great Sydenham, in his Encyclopœdia on Fevers, has the following recipe and remark.

"℞. Mercurii dulc. gr. xv. Antimon. diaphoret, gr. vj. M.

"Magni venditatur in febribus continuis et intermittentibus panacea illa duplicata quæ me raro fefellit ad ℈j. cum oculis cancrorum exhibita in liquore conveniente." Chap. i. p. 27, de Febribus in genere Encyclopœdiæ Medicæ, Johannis Dolœi, Francofurte, 1691.

From the manner in which Ariſtotle, Galen, Oribaſius, Paulus Ægineta, Ætius, Actuarius, Nicander, Dioſcorides, Pliny, &c. have taken notice of mercury, it is ſuppoſed to have been ſeldom uſed internally before the fifteenth century. But as Auſonius lived in the fourth century, and is ſaid to be the ſon of a phyſician, we can hardly read the following Epigram of his, which Simon Paulli has quoted in his Digreſſio de Febribus Malignis, without believing that either through his father, or ſome other means, this poet had been acquainted with the internal uſe of mercury as a medicine.

EPIGRAM X.

Toxica Zelotypo dedit uxor mæcha marito:
  Nec ſatis ad mortem credidit eſſe datum.
Miſcuit argenti lethalia pondera vivi
  Cogeret ut celerem vis geminata necem.
Dividat hæc ſi quis, faciunt diſcreta venenum,
  Antidotum ſumet, qui ſociata bibet.
Ergo inter ſeſe dum noxia pocula certant
  Ceſſit lethalis noxa ſalutiferæ:
Protinus et vacuos alvi petiêre receſſus
  Lubrica dejectis qua via nota cibis.
Quam pia cura Deum! prodeſt crudelior uxor,
  Et quum fata volunt, bina venena juvant.

To the Editors of the Medical and Phyſical Journal.

GENTLEMEN,

I Send you the following Caſe of Cataract, to inſert in the Medical Journal, if you conſider it worthy of publication.

I am, &c.

Beccles,
February 5, 1802.

W. CROWFOOT.

William Moore, of Long Stratton, a young man, by trade a cooper, applied to me many years since, for a defect in his sight, which within a short time had increased so much, that he frequently wounded himself in the usual employment of his business. The cause he believed to arise from exposure to a severe thunder storm, wherein the lightning was remarkably vivid. Upon examination, a compleat Cataract was observable in the right eye; but as the left eye was perfect, and there was reason to hope a little time would correct the imperfection he complained of, I was unwilling to advise any operation. The gentlemen at the Norwich Hospital, with whom he afterwards consulted, were pleased to confirm my opinion, and, as was foretold, he soon ascertained the real situation of objects, and was able to follow his accustomed occupation without inconvenience. After several months had elapsed, he was one day seized with violent pain in the globe of the diseased eye, attended with fever and delirium. A plentiful bleeding relieved him, but the next day a return of the same distressing symptoms came on, when not only general bleeding was repeated, and leeches applied to the temple, but other means recommended in cases of inflammation were employed, and in a few days he got perfectly well.

Soon after his recovery he made similar mistakes of objects as he had at first, and came very anxiously to desire I would again examine his eyes. It was with great surprise and admiration I now perceived, that the opacity of the chrystalline was removed, and except that the iris did not contract so readily, he could discern objects very distinctly with this eye; which, for a short space of time, occasioned the return of those evils produced by the disease.

Dr. Murray, a worthy physician, at that time in Norwich, who had seen him at the hospital, examined this patient at my house, after his recovery; and it was great satisfaction to me, at the time, to have such respectable testimony to a case so very extraordinary.

I have since heard of two other cases of Cataract *cured by inflammation*, after unsuccessful attempts in couching, and one of these having happened at a public hospital in London, no doubt can remain upon the mind that the fact is well established.

How far it may be proper or expedient to excite inflammation upon the tunica conjunctiva or cornea, with the design of removing a disease in the chrystalline, is not for me to determine; but in perusing a very interesting case of Mr. Ware's in the Philosophical Transactions, I am induced to think the inflammation produced by puncturing the capsule of the chrystalline, and promoting the absorption of the opaque humour, may

may be an additional reaſon to thoſe ſuggeſted by that eminent practitioner, for attempting the cure of blindneſs in caſes of Cataract at an earlier age than was formerly thought adviſeable.

A Case of Anasarca and Hydrops Pulmonum,

Which were principally removed by Scarifications; but were, after some months, succeeded by an Ascites and Hydrops Vaginæ, which latter form of the disease was cured by tapping the Vagina. In two parts; with introductory observations to each. Communicated by Mr. WILLIAM COLEY, *Surgeon, in Bridgnorth.*

INTRODUCTORY to the following hiſtory, I beg leave to make ſome obſervations on the practice of *scarifications* in hydropic diſeaſes; of which this caſe bears a moſt convincing teſtimony of their wonderful utility, even in a ſituation the moſt deſperate and unpromiſing. This is the more neceſſary, as from my own knowledge I find that the provincial practitioners, in general, are extremely averſe to the practice, notwithſtanding ſo much was formerly advanced in its favour by the late Dr. Fothergill. *(Med. Obs. & Inq. vol. iv.)* So far as the evidence of an individual can go, whoſe practice is regulated, not ſo much by theory, or theorizing, as by a cloſe and impartial obſervance of the effects and operations of remedies in diſeaſes, I can truly affirm that in no inſtance, of more than fifty anaſarcous caſes in which I have perſonally ſeen and uſed the ſcarifications, or inciſions, have I in any one ever obſerved the leaſt injury to ariſe from them, though they have at one time or other been employed upon almoſt every external part of the human body; they have ſometimes been reſorted to at too late a period of diſeaſe, and what remedy occaſionally has not? but in almoſt every fair caſe that has occurred, that is, in every ſituation where there could be a poſſibility of relief expected, much good has been done by them; many caſes of anaſarca of the thighs and legs have been cured chiefly by this remedy; and œdematous ſwellings, in any ſituation of the external parts, have generally been alone removed by them. The marks occaſioned by the inciſions after they are healed become ſcarcely viſible, though the operation may have been many times repeated. The operation is moſt conveniently done, where the part will admit of its application, by the common ſcarificator; but where it will not, ſmall inciſions, not exceeding one-fourth of

of an inch in length, made juſt through the ſkin with the point of a lancet, do equally well. They ſhould be made not in the direction of the muſcular fibres, but tranſverſely. Prepared cabbage-leaves, or ſimple cerate, ſhould be kept over the inciſions to preſerve the orifices moiſt, and thus prevent their prematurely cloſing. The inciſions commonly keep open from two to four or five days; and it is wonderful to obſerve in many caſes what a ſurpriſing quantity of liquid diſcharges from them. I cannot therefore too ſtrongly recommend, in addition to the high authority before mentioned, an extenſion of the practice of ſcarifications in all ſimilar caſes.

The First Part of the Case, or that which relates to the Anasarca and the Hydrops Pulmonum only.

1800, April 9, Mrs. P. a woman of a very debile and delicate habit, moderate ſtature, thin ſkin, grey eyes; mother of two very weakly living children; had been ſubject to repeated abortions. She lay-in about five weeks ago, previous to which there was a conſiderable œdema of the legs. She has now an almoſt univerſal dropſy, which has been gradually increaſing ever ſince her delivery. The thighs, legs and feet, are ſwollen to a moſt enormous ſize, and are nearly cold; but though ſo greatly diſtended they readily receive the impreſſion of the fingers. The face, arms, and other parts of the body are hydropically ſwollen alſo; but the abdomen does not appear to be aſcitic, or if it contain any fluid, it muſt be in ſmall quantity. The reſpiration is ſo extremely ſhort and laborious as to have diſabled her from lying down for ſome weeks; which, with the other ſymptoms, give every reaſon to ſuppoſe the lungs, if not alſo the cavity of the cheſt, are fully diſtended with ſerous accumulation. She for ſeveral days has been able to reſpire only while the trunk was in an erect poſition, which has confined her to ſitting upon a chair both night and day, in a ſtate of painful and ſuffering exiſtence. Her debility is ſo great that ſhe has hardly the power of ſpeaking to be heard, nor without much attention can it be aſcertained what ſhe articulates. She gets very little ſleep, though from the torpor of the ſyſtem, and the mode of treatment that has been adopted by the adminiſtration of inebriating *stimuli*,* ſhe is, in general, in a ſtate nearly approaching

* Whether the practice alluded to was entirely conſonant to the *Brunonian* doctrines I do not enquire; but, that it was in imitation of thoſe doctrines, the following anecdote will demonſtrate; and at the ſame time ſufficiently expoſe the principles of ſuch practice. A phyſician, (*non Salopiæ*) whoſe name is withheld *only* to avoid *controversy*, had been for ſome weeks conſulted

ing to comatose. She has but little if any thirst, and the tongue is moist; she passes scarcely any urine. Of stools it was observed that she had generally three or four very small ones every day. The pulse is extremely weak, and cannot be very accurately counted; but I noted the pulsations to exceed 100 in a minute. She complained of having had a stitch or pain in the left side of the thorax, in the course of this illness; and I understood that, with a little coughing, she had expectorated some bloody mucus, but not in much quantity.

The imminent danger of this patient, reduced by her symptoms almost to a dying state, requiring some mode of treatment that would be *speedy* and of *certain effect*, I advised the immediate adoption of scarifications of the extremities, which were accordingly done at the instant by a lancet, (not having any more convenient instrument at hand) six or eight small incisions being made with the point of it on the inner sides near to the ancles of each leg; from which there immediately and copiously issued a very kind *stillicidium* of fluid. Warm cabbage leaves were applied over the incisions; she took twenty-five drops of *tinctura digitalis*, with direction to repeat them twice a day. For diet she was directed beef tea, sago, and wine-negus; she was not capable of swallowing any solid.

11th. As she lived several miles distant from me, professional engagements

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sulted by this patient before I saw her. He had ordered her to drink *plentifully* of *strong old beer*, of which a cask that had been brewed three years, and was of a strength little inferior to brandy, was actually tapped for her use exclusively; and lest this good old beverage should not be sufficiently potent, she was also directed to ingurgitate freely, every night, of strong *Holland's gin* and water, both which injunctions had been carefully followed for a long time. And that her former surgeon, a gentleman of judgment and respectability in his profession, who had attended her in this illness, might not be benefited by the Doctor's consultation or prescription, the family were directed themselves, at considerable labour, and some expence, to collect broom *(genista)* for burning; the ashes of which were recommended by this physician as a sovereign remedy for the disease. But when I told the husband of the patient, who enquired of me my opinion of the remedy, that, instead of employing his servants nearly a day in this fiery process, he might for a few pence have obtained the same medicine, and in a much cleaner, purer state, in common *pearl ashes*, I know not which most to admire, the astonishment of my non-chemical friend, or the illiberal conduct of the physician. But, lest the excitement of the system should not be entirely complete by *old beer*, and *gin*, and *ashes*, the *diffusible stimuli* were resorted to, which of course led to a liberal employment of *æther*, *volatile alkali*, &c. And that the effused fluid might be repelled, or expelled, as well by external as internal means, the extremities, *when swollen as full as the skin could contain*, were directed to be firmly and constantly delegated with a flannel roller; the injurious consequence of which soon appeared, and need not be pointed out to the discerning practitioner. W. C.

engagements prevented my ſeeing her yeſterday. I found this morning that ſhe had taken four doſes of the tincture, but without its producing any increaſe of urine; yet the pulſe was reduced to only 60 pulſations in the minute. The diſcharge from the inciſions was going on well, and it was ſuppoſed that ſome *quarts* had drained off, and with the beſt effect, for the ſwellings of the thighs were much reduced, and the breathing evidently better. She continues to have three or four ſmall ſtools daily. Directed the drops to be continued, and an analeptic diet.

12th. She was taken very ill this morning about 3 o'clock, (now twelve hours ſince) with extreme ſickneſs and vomiting. From that time till the preſent ſhe has been in a conſtant ſtate of languor and faintneſs, with extreme debility, coldneſs of the ſkin, and increaſe of dyſpnœa; the pulſe ſo ſmall and quick as not to be counted, though ſome weak re-action of the arterial ſyſtem had now taken place. She paſſes ſcarcely any urine, but the ſcarifications continue draining. After waiting two hours, in which time cordials, &c. were adminiſtered, the pulſe became more diſtinct, and could barely be diſcovered, beating about 108 in a minute. Directed only cordials to be given at preſent.

13th. Has had ſome increaſe of urine to-night; expectoration tinged with blood; the pulſe is leſs quick, and the natural heat of the ſurface is reſtored; in other reſpects the ſymptoms are nearly ſtationary. Complains of pain and weakneſs in the loins. The diſcharge of one of the legs having almoſt ceaſed, the ſcarification was repeated; and *bals. Canad.* was ſubſtituted for the Digitalis, of which fifteen grains were directed to be taken three times a day; and a liniment for the loins, conſiſting of camphorated ſpirit and tincture of cantharides, to be applied twice a day.

14th. Scarification of the other leg was this day repeated, as the former inciſions were healed.

18th. She has continued on the whole ſomewhat better ſince the 14th; has reſpired with leſs difficulty, and been able to lay down a little in the night; has had leſs of languor, and has taken more food. Conſiderable diſcharge going on from the ſcarifications; and the ſwellings of the legs and thighs are diminiſhing.

19th. She had ſeveral cold chills yeſterday evening. The breathing this morning is very difficult, with a ſtitch in the left ſide of the thorax; p. 132; complains of thirſt; has ſome increaſe of the ſwellings of the legs, and makes leſs urine; is alſo purged. A bliſtering plaſter was applied to the ſide, and a draught, conſiſting of 30 grains of acetated kali, 20 drops of

tincture of fox-glove, 4 drops of tincture of opium, and 40 drops of spirit of nitrous æther, directed to be taken twice a day.

21ft. She has taken four draughts. The dyspnœa is much better; has not spat any blood these two days till this morning, when she expectorated one large clot; coughs now and then, but expectorates without much difficulty; p. now only 102 to 108; has passed a pint of urine this morning; pain of the side shifted higher; sleeps much; stools regular; the swellings again lessening. Ordered the draught to be repeated every night only, and a mixture of camphire, vitriolic æther, and squill, to be taken occasionally to relieve the dyspnœa.

23d. Continues to mend every day, and has had tolerable good nights for some time, being enabled to lay down all the night; strength and appetite improving; is this day menstruating; urine excreted in proper quantity. The legs are now so little swelled as only to require rolling, which they bear well; the cuticle is peeling off them.

25th. She is now able to walk into another room, and is so far convalescent as to indicate the propriety of a tonic plan of treatment, which commenced this day. The diuretic draughts were also continued every night for nearly two weeks longer, with a spirituous embrocation occasionally to the legs, previously to applying the roller.

On the 20th of May, I had the pleasure to leave her in perfect health, in every respect except debility and loss of flesh, both of which she was then recruiting very fast; and the exercise on horseback, which she had taken some days before this, a continuance of which I recommended, left no room to doubt of her entire recovery in a short time. In the month of July she had no dropsical symptom whatever, and had so completely regained both her flesh and strength, as to be able to superintend the affairs of a large family, in which much exercise and exertion were requisite.

Introductory Observations to the Second Part of the Case.

When cases of rare occurrence become the objects of practice with professional men, it surely behoves them to lay the facts before the community from time to time, that thus the profession primarily, and the public ultimately, may each be benefited thereby. With this view it is that the following statement is communicated, to record an additional instance of an hydropic tumour of the vagina, which in some cases of the ascites, appears to be produced by the latter disease; and it probably never occurs unconnected with the ascites. I suspect, however, that such combination may have existed, though perhaps

haps ra[illegible]ely, in caſes of aſcites in the female ſubject, where, from the delicacy of the patient, it may not have been mentioned, and conſequently been neither ſuſpected nor its preſence kno[illegible]

T[illegible]ſpicion is founded on an occurrence that lately hap[illegible]my own practice: A female patient, of low circumſtances but of good moral character, aged only ſeventeen or eighteen, unmarried, was in the laſt ſtage of a phthiſis; in which ſituation ſhe became dropſical, chiefly in the abdomen; the aſcites increaſed, and ſhe complained of dyſury. On being *questioned* whether ſhe felt any fulneſs or tumour in the vagina, ſhe very reluctantly confeſſed ſhe did. I was permitted to examine it; and immediately diſcovered a ſoft fluctuating tumour, filling the vagina, and beginning to protrude through the external labia. By puſhing two fingers againſt it, it receded within the pelvis; but inſtantly returned on removing the fingers. The uterus, of a very ſmall ſize, by introducing the fingers far within the vagina, was diſtinctly felt underneath, or on one ſide of the tumour; but ſhe complained of ſo much pain from the examination that I could not be ſatisfied of the whole caſe ſo correctly as I wiſhed; though I was fully convinced of its being a true inſtance of the hydrops vaginæ. She was ſo reduced, and in other reſpects with the phthiſis ſo nearly exhauſted, that no operation was propoſed; and if it had, would not probably have been allowed. She died a few days afterwards. But that ſimilar inſtances of the hydropic diſeaſe are not often met with, may reaſonably be preſumed from the entire ſilence of medical writers on the ſubject until very lately; for no account of the fact was ever publiſhed in this country, ſo far as I know of, until a paper on the ſubject by Mr. Watſon, appeared in the firſt Volume of "Med. Communications." He deſcribes the diſeaſe as he obſerved it in two patients; one of whom he tapped in the vagina twice, the other once, with the effect of curing the aſcites in both of them. His directions reſpecting the operation are full and judicious. In the ſecond volume of the ſame work is communicated a ſimilar caſe by Sir W. Biſhop, which was treated in the manner recommended by Mr. Watſon, and with equal ſucceſs. Dr. Denman, in his Lectures, uſed to deſcribe this ſwelling as a dropſy of the *perinæum*. He has ſince publiſhed his ſentiments on the ſubject; and the theory of it he has advanced is, without doubt, the only proper explanation the caſe will admit of; which is, that the tumour or prolapſus is "occaſioned by the preſſure of the water contained in the cavity of the abdomen upon the inflected part of the peritonæum, between the vagina and rectum." (*Introd. to Midwifery*, *Vol.*

Vol. I. p. 141) He met with an example of this tumour in a pregnant woman; on account of which incident the operation was deferred until after the delivery, and ultimately until after her death, as ſhe died on the fourth day of her lying-in [illegible] this happened, a trocar was puſhed into the tumour [illegible] th[illegible] the nature of the diſeaſe was clearly aſcertained; wh[illegible] this period, from the profeſſional conduct obſerved, it probably was not; though ſeveral gentlemen of the firſt eminence in the profeſſion were conſulted on the occaſion.

From all theſe circumſtances, it is apparent that it ſhould always be a part of the Surgeon's inquiry, in the examination of female patients afflicted with aſcites, to aſcertain whether at the ſame time there be preſent any tumour or fulneſs of the vagina of the hydropic kind, as ſuch accumulation of fluid would moſt likely be not a mere local tumour, but a continuation of the diſeaſe of the abdomen; requiring of courſe a treatment different to what would be proper for the aſcites only. The operation of tapping the vagina, while it effectually diſcharges the whole fluid of the abdomen as well as that of the vaginal tumour, is ſo much more *ſafe* and *certain* than the *paracenteſis abdominis*, that it ought always to be preferred where the diſeaſe exiſts in this complicated form. For the latter operation, though one of the moſt ſimple in ſurgery, proves ſometimes alſo one of the moſt fatal; and there does not ſeem to be any care or attention on the part of the operator that can prevent it; of which ſee ſeveral inſtances adduced by Mr. Ford, in "Medical Communications, Vol. II." The ſame alſo has been obſerved by Mr. Cline in his Lectures on Surgery.

Part Second, which compriſes an Account of the Aſcites and the Hydrops Vaginæ.

1800, Nov. 3, I was deſired to ſee the above patient again, in conſequence of ſome troubleſome ſymptoms, which ſhe and her female friends ſuppoſed to be dependent upon pregnancy. I found the principal circumſtance ſhe had to mention was a painful tumour in the vagina, which ſhe conceived to be a bearing down of a child's head. She deſcribed it as being moſt troubleſome in the night, and that ſhe found it increaſing in bulk for more than a month, accompanied with frequent difficulty in making water. The abdomen had gradually increaſed in ſize for at leaſt three months, and was now as large as it had uſually been in her former pregnancies. She was very well in all other reſpects. In examining the abdomen, which was fully and equally diſtended, I had no heſitation in believing that the caſe was an *aſcites*; and told her ſo. The tumour I found

I found entirely filling up the vagina, and it was descended full three inches below its external orifice. On pressing against it with the fingers it readily receded; and it indubitably contained a fluid. This tumour was a part of the vagina, the posterior portion of it forming an evident *prolapsus vaginæ*; which was ascertained by passing the fingers over it, from the perinæum upwards. As the whole of the vagina was thus filled, it evidently occasioned compressure upon the urethra, thereby occasioning the dysury of which she complained. By pushing the prolapsus upwards, the contained fluid readily passed into the pelvis; but on removing the hand it instantly returned. I had no doubt but this swelling was occasioned by the weight or pressure of the superincumbent water of the ascites; and therefore, in fact, that only one disease existed, though two separate, but not unconnected hydropic tumours were formed; which circumstances I mentioned at the time, and encouraged her to hope for a perfect cure of all the symptoms by an operation. To this she readily consented, being desirous to submit to any treatment that would be likely to relieve her from the pain and trouble she had so long endured. The uterus was not within reach of the fingers.

Nov. 5. Previously to the perforation, which was performed this day, I made a more full and ocular examination of the disease; from which it was demonstrably ascertained that the tumour was formed of the posterior part of the vagina. The external substance was fleshy, and the cuticle had peeled off it some time before, as it had now a furfuraceous appearance remaining. The operation was performed in the manner recommended and described by Mr. Watson. (*Med. Commun. Vol. I. Art.* 12.) A small round trocar was used; and I found it necessary before passing it, to introduce two fingers of the left hand over the tumour to prevent the retro-cession of the fluid and make the substance more tense. This precaution seems highly requisite. She stood upright during the operation, leaning her back against the back of a chair, supported by two assistants. The fluid, which was of a deep straw colour and inodorous, immediately passed through the canula in a full stream. After about three quarts had discharged, an accident displaced the canula from the wound; but without any kind of inconvenience, as the discharge continued equally well to the very last, excepting occasional interruptions that occurred from her sitting down, which she was allowed to do once or twice. Changing the upright posture, we found immediately prevented the liquid flowing out; notwithstanding which, the whole quantity, amounting to two gallons, was thus evacuated in about half an hour. Pressure was applied to the abdomen during

during the whole time, both to prevent fainting and to render the evacuation as complete as could be. Afterwards a dry flannel roller was applied to the belly, and a warm cloth to the pudenda. No dreſſing or application of any kind was made uſe of; and ſcarcely a drop of blood was effuſed from the wound. After the operation I perceived a ſmall circumſcribed tumour remaining in the hypogaſtrium, which I ſuſpected to be an hydatid; but except this there was a very complete collapſe both of the abdomen and of the tumour. She bore the evacuation very well and was afterwards put to bed.

On the next day I found ſhe had paſſed an indifferent night, having had ſeveral ſpaſmodic pains in the belly; but they were now gone off. She had made water twice with perfect eaſe; and had not felt any pain or inconvenience in the punctured part. She was ordered a cordial diet, and the abdomen to be rubbed every morning with camphorated ſpirit, continuing the bandage; alſo a diuretic medicine. She got up this morning to breakfaſt.

7th. She thinks the ſwelling of the hypogaſtrium ſomewhat increaſed; no other alteration.

12th. She has taken only three doſes of the medicine, *(pul. digit.)* having intermitted it on account of its occaſioning nauſea. The ſwelling in the vagina is beginning to return, which ſhe firſt perceived laſt night; and ſhe thinks the abdomen is again filling. Health good.

19th. Since ſhe has taken the medicine regularly, which I deſired ſhe would do, the ſwelling of the abdomen has diminiſhed; and ſhe feels leſs of the tumour in the vagina.

26th. Completely cured and in good health. The medicine produced a diuretic effect, and conſequently occaſioned abſorption of the remaining part of the effuſed fluid.

She continued perfectly well for more than five months after the operation; but ſo ſtrongly rooted was the hydropic diatheſis in her conſtitution, that after this time the dropſical ſymptoms returned in their original form; and ſhe again became affected with dyſpnœa and œdema of the extremities. Theſe were ſeveral times relieved or removed by internal remedies, and occaſionally by ſcarifications; but ſhe ſeldom kept tolerably well many weeks together without medical help. In the month of November laſt all the ſymptoms became worſe; and under this affliction, with every aſſiſtance that art could ſuggeſt, ſhe found no relief. After thus lingering ſome weeks ſhe at length died, perfectly exhauſted and worn out; but ſhe never had any return of the aſcites, or of the hydrops vaginæ. No diuretic ever gave her ſo much relief in various ſtages of her illneſs as the digitalis; and the effect of this was ſometimes increaſed by combining

combining it with hydrargyrus; it however at length, from frequent repetition, became quite uſeleſs, or acted only as an emetic.

Bridgnorth, Feb. 1802. W. C.

To Dr. BRADLEY.

SIR,

IF the following Obſervations be worth inſertion in your Journal, be pleaſed, at your convenience, to give them a place therein, and you will additionally oblige,

Sir, your obliged friend,

Cheſter, Nov. 30, 1801. GEORGE NESSE HILL.

NOTWITHSTANDING the very improved ſtate of Oſteological knowledge, ſince the great advancement made towards aſcertaining the laws which govern the abſorbent ſyſtem, yet much undoubtedly remains to be done on this highly important inexhauſtible ſubject. The diſeaſes of the bones are, perhaps, moſt of them well underſtood, and commonly treated with ſucceſs, yet there is one occurring ſometimes which does not ſeem to have fully ſhared in this ſucceſs; to this I wiſh for a few moments to ſolicit attention, with the hope that what may now be advanced will at leaſt tend to bring forward uſeful obſervations from more experienced practitioners. There can ſcarce be a Surgeon whoſe practice has not afforded him inſtances of thickening or enlargement of the bones, attended with more or leſs of pain, impediment of motion, deformity, neighbouring diſeaſe, general diſeaſe, and ſometimes ultimately death. The univerſal influence and wonderful powers of the abſorbent ſyſtem in all the functions of the animal œconomy are in our day ſo well known and ſo frequently illuſtrated, that it may ſafely be ſaid the great improvements our Art has acquired in modern times, owe their riſe in a conſiderable degree to this ſource; it may alſo, without heſitation be averred, that he is the moſt ſucceſsful practitioner in medicine, who moſt clearly comprehends their laws, offices, and extenſive powers, and who has cultivated this branch of knowledge with the moſt aſſiduity; ſtill it cannot be denied that much remains to be done in this extenſive vineyard, and that there is every inviting proſpect of ſucceſs to all who ſhall attempt farther elucidation in ſo uſeful a department of medical ſcience. Many excellent

cellent Treatiſes have been ſent into the world profeſſedly on the ſubject of ulcers of the legs; and the more voluminous works of authors in general, on Surgery, have always treated this ſubject with peculiar attention: Nor without juſt reaſon has ſo much time and pains occupied their abilities, this fountain of human calamity affording ſuch numerous ſtreams as to conſtitute a very large proportion of the objects of chirurgical regard. In what little I have to advance on a matter of ſuch conſequence and magnitude, I mean to confine myſelf to that ſpecies of diſeaſed bone ariſing from redundant depoſition of boney matter proceeding from a variety of cauſes, as blows, bruiſes, obſtruction, ſtimuli circulating in the fluids, as the venereal virus, caries, and the conſequences (ſometimes) of amputation. The thickening and conſequent disfigurement of bones accompanying ulceration, does not always originate in the bone, but ſometimes in its compages; but, I believe, it will be found that the bone is always more or leſs materially concerned whenever its peculiar inveſting membrane, the perioſteum, is diſeaſed. The bones have been ſo accurately deſcribed, as to their general fabric, by our able phyſiologiſts, that it would be ſuperfluous to ſay more on this head, than barely to recall to the minds of thoſe who ſhall honor theſe remarks with a peruſal, that they are compoſed of blood veſſels, nerves, membranes, fat, lymphatic veſſels, and cellular ſubſtance, all more or leſs firmly united with an hard, earthy, inſenſible matter; ſo that allowing for this circumſtance, and peculiar ſituation, theſe blood veſſels, nerves, &c. are as capable of being acted upon by common cauſes as the ſame parts are in any other ſituation; hence they may be deranged in all the ordinary modes, and alike influenced by common remedies, allowing for difference of ſituation. Oſſific inflammation muſt be treated as muſcular inflammation, although accompanied and followed by peculiar phænomena, the hard reſiſting earthy matter not ſuffering the vaſcular parts to diſtend as in a muſcle; hence, without the interpoſition of ſuitable means, deſtruction or caries muſt follow. But very extenſive and alarming diſeaſe will take place in bones without caries, every practitioner being daily ſenſible that the terms, carious bone and diſeaſed bone mean two very different things; the former implying the mortification or death of the part, the latter is expreſſive of any affection the reſult of inflammation, defective abſorption, redundant ſecretion, perioſteal thickening, and a great variety of cauſes. It is of diſeaſed bone, and of that ſpecies ariſing from redundant ſecretion of boney matter, I am now to treat: This affection may be either ſimple or compound, as it is, or is not, connected with caries of the bone or ulceration of the contiguous ſoft parts;

a blow

a blow on the tibia, or a kick on the ſhin, as it is commonly called, often gives us the firſt kind; whilſt fractures, wounds, ancient ulcers, and the conſequences of amputation, afford the laſt; in both, the effects produced by the ſtate of the ſyſtem are ſimilar: a ſimple blow on a bone ſhall ſometimes be the exciting cauſe of extenſive miſchief; Nature, as it were, takes the alarm, and immediately commences a proceſs exactly ſimilar to that which follows fracture, viz. Firſt, ſecretion of coagulable lymph as a matrix; Secondly, depoſition of boney matter therein, and conſequent tumor, which has ſometimes unhappily been miſtaken for a ſyphilitic affection. A brick-layer's labourer, ſome time ſince, fell from the ſecond ſtory of a new building; he received conſiderable hurt of his left thigh bone, in ſuch a manner as to bruiſe but not to break it; the ſhock and injury were great, but unaccompanied with even abraſion of the ſkin, nor did extenſive inflammation follow; but the man endured unintermitting pain with rapid increaſe of the whole femur from above downwards to the ſpot hurt, and at length total inability to uſe it; he died quite exhauſted. Permiſſion being given to examine it, boney matter was found to have been depoſited in ſuch quantity from the hip joint to the bruiſed part (within a few inches of the condyles) as to have quite ſunk the ſufferer under the inordinate, uſeleſs exertion. Perhaps no hurt, however ſmall, is inflicted on a bone without a greater or leſs degree of this proceſs taking place; exuberant ſecretion is manifeſted in moſt fractures, and after amputation, as already obſerved, it ſometimes cauſes extenſive miſchief and death; this is almoſt to a certainty the caſe where the end of the bone dying is to be thrown off by the efforts of Nature. Abraſion, or ſimple wounds of bones, or of the perioſteum, are ſometimes ſucceeded by conſiderable inflammation, the firſt ſtep in the proceſs; the ſecond is depoſition, and this may follow with or without previous loſs of ſubſtance. This redundance muſt be diſtinguiſhed from tumefaction, the effects of defective abſorption occurring in ſcrophula; alſo from obſtruction, the effects of ſyphilitic ſtimulus circulating in the fluids. No ſuperior diſcrimination is neceſſary for this purpoſe, common attention alone being a ſure guide; thus the rule of diagnoſis may be drawn from the abſence of general ſcrophulous or ſyphilitic ſymptoms, from the age, general health of the patient, from a conſideration of the exciting cauſes, as blows, bruiſes, &c. Ruptured lymphatics will ſometimes be the conſequence of great exertions, as in difficult parturition, and ultimately produce incredibly large tumours, *rudis indigestaque moles*; but here the exciting cauſe commonly points out at once the diſtinction where early attention has been paid to the ſymptoms and

progrefs of difeafe. Continual depofition and abforption are unceafing proceffes in the animal œconomy; health, therefore, muft of confequence greatly depend upon the due equilibrium being preferved between thefe two grand and conftant operations. That fecretion is conftant and abfolutely indifpenfible is univerfally allowed, how it fhould happen that proportionate abforption fhould have been overlooked on fome occafions is matter of wonder; on this certain fact, notwithftanding, the whole phænomena of fcrophula depends. But to return more directly to the fubject of this paper, we deduce from this obfervation, confirmation of our leading affertion, viz. that redundant fecretion is the caufe of all the evil in contemplation; abforption goes on as ufual, but its agents, the lymphatics, remove only the thinner parts or coagulable lymph, as in forming new bone for the cure, fracture leaving the hard earthy particles to accumulate; hence, in a longer or fhorter period, proportionate pain, fwelling, derangement of periofteum, cellular fubftance, blood veffels and nerves; in fhort, of all the contiguous parts to the integuments: Thefe are the confequences which may be termed local; the general fymptoms are pyrexia, debility, emaciation, the languor of exhauftion, hectic fever, and death, from the emphatical caufe a patient once alleged to me, that all the food and medicines he took went but to nourifh the fwelling. But exclufive of thefe fatal cafes we have the difeafe in a lefs terrific form almoft daily occuring with and without ulceration, efpecially in the leg; the firft and moft fimple form is that arifing from a blow inflicted without the flighteft apparent cuticular injury, the fucceeding tumour affuming the appearance of exoftofis; the fecond is a more diffufed or unequal enlargement accompained with ulceration, in one or more frequently various fpots of the limb; a third may be denominated, that where a blow or bruife has fo fhaken the bone as to caufe the death of a part; here we fhall have a thickening to an amazing extent, proceeding from the exertions of Nature to free the healthy from the deftroyed parts; this fpecies often fucceeds compound fracture, is always accompanied with ulceration, and comprehends thofe which occur fubfequent to amputation, when a portion of the whole divided bone muft be thrown off; thefe three fpecies embrace the whole feries of tumours from redundant fecretion. The primary curative indication is analagous to that indicated in fcrophula, with the difference or diftinction before mentioned, viz. the excitement of the abforbent veffels to a greater force or degree of action; but the ftriking diftinction confifts in the one requiring diminution of the fecreting procefs and the other not. In fcrophula there does not appear to exift inordinate fecre-

tion,

tion, but ſimply inert or defective abſorption; hence the redundance ariſes from oppoſite cauſes, and is attended with a ſtriking difference as to general health and appearance; in the inſtances which have fallen under my notice, the ſufferers have uniformly been of that habit of body which is indicative of an oppoſite ſtate to the ſcrophulous diatheſis. Defective ſecretion of boney matter we ſee illuſtrated in rachitis, it alſo ſometimes occurs in fractures; I recollect a caſe of fractured humerus in the London Hoſpital ſome years ago, which from the time of the accident to the end of the period commonly taking place for the reunion of this bone, never manifeſted other ſigns of ſolidity than the firſt ſtep, namely, the ſecretion of coagulable lymph. Under the idea that the man might be ſuffering from a venereal taint, mercury was adminiſtered ſo as gently to affect the mouth; ſtill nothing was gained, Nature being as reluctant in completing the work as before. As a powerful ſtimulus to produce complete reſtoration, an inciſion was made through the ſoft parts, ſufficiently large to expoſe the fractured ends of the bone; they were found barely glued together by the coagulable lymph; this was removed, and alſo a very ſmall portion of bone, with the ſaw; the whole afterwards replaced in a proper poſition, an effort appeared ſoon to be made towards healthy completion of the buſineſs, for at the end of a month, re-union more ſolid than before had taken place, but ſtill far from what was abſolutely neceſſary to complete cure. Tonics, cold bathing, and every thing in ſhort that great ability could ſuggeſt, were tried to rouſe the dormant action of the ſecreting veſſels, but the neceſſary depoſition ſeemed as far off as ever. In this ſtate of matters I left the houſe, and did not (through accident) learn what became of the poor unfortunate ſufferer. At the very ſame period a ſtrong luſty man was admitted into the ſame Hoſpital, with an enlarged thigh from the hip to a little lower than the middle, painful but not inflamed; after increaſing to an enormous ſize, producing great weakneſs, hectic fever, &c. he died. Examination being permitted, a ſmall portion of the bone at the inferior extremity of the tumor was found carious; to throw off which, the whole femur to the carious ſpot was covered with boney matter to an amazing thickneſs; the very membranes and muſcles were loaded with ſimilar ſubſtances. Theſe two caſes form a ſtriking contraſt illuſtrating the effects of defective and inordinate ſecretion, at the ſame time pointing out the line of conduct to be purſued by the Surgeon, never loſing ſight of the juſt diſtinction to be made between redundant ſecretion and defective abſorption, error in this reſpect being the moſt dangerous rock on which inadvertence can be driven. In both caſes the ſtriking local ſymptoms are tume-

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faction, pain, immobility, and earlier or later inflammation with general affection; but in the latter case the symptoms of general affection are strongly indicative of scrophulus habit, whilst in the former they are wholly absent. A just diagnosis being formed, the mode of treatment will be suggested from the history, symptoms, exact nature and situation of the species of disease, viz. to produce such an increased action in the absorbents as shall effectually counteract the inordinate action of the secretory vessels of the part diseased. If the original cause be bruised or hurt bone, without wound or ulceration, and the sufferer be young, that is, under middle age, and possessing a constitution that will admit of bleeding, it may be the first step, local bleeding by leeches, or cupping, will advantageously succeed; frictions and compression of the whole limb alternately will be found powerfully promotive of absorption; internally, gentle emetics, cathartics, and at intervals small doses of mercury, the tinct. digitalis, nitre when it acts by the kidneys, tend to the desired effect: These means, with an abstemious diet, especially with regard to liquids, will commonly succeed; but in every description of case I have seen, a liberal use of the nitric acid has been most eminently successful, so much so, as to give rise to these desultory remarks. Whatever may be the antivenereal properties of this valuable medicine, it is not for me to attempt to decide; but of its powers to excite extraordinary action of the absorbent system, I can speak with satisfactory confidence; its exhibition in all affections of the bones of the nature here spoken of, has always afforded me pleasure; its power over this highly important part of the system seems second to nothing but mercury. Cutaneous inflammation, excited by rubefacients, as often as the skin will bear it, is a powful auxiliary; and when recourse cannot be had to it exactly over the part affected, it may be used as near thereto as possible, and that with an effect not to be despised, when it is cooly considered that it is from the aggregate effect of a number of remedies (perhaps individually applied but of small importance) that is to give a beneficial result in these cases. Hence the means employed can scarcely be too numerous, provided they all tend to this common centre; nor can they be too perseveringly employed, if complete success is to be the reward: in short, *hic labor hoc opus est.* Compression has evinced its power in promoting absorption in the cases of conical stump, formerly so common; and that pressure increases the action of the lymphatics, is manifest to the most incurious observer. The compress, whatever be its description, should be applied over the whole diseased limb, be the disease situated where it may. For the leg, the laced stocking, when nicely adapted

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and made of firm materials, has the advantage over the roller, eſpecially to labouring men, who can afford but little time for reſt or recumbent poſture. Theſe means, judiciouſly applied, will commonly anſwer the deſired end; where this is not the caſe, and Nature does not ſeem to take the hint given her with adequate alacrity, a fontanelle may be advantageouſly added to the curative means. It ſhould be placed as near the enlargement as poſſible, and be made of a ſize adapted to the ſtrength of the patient and magnitude of the evil; thus the early and moſt ſimple form of the diſeaſe will be ſucceſsfully combated. When undue depoſition of boney matter and ulceration are combined, the caſe becomes more complex; ſtill no caries may exiſt, diſeaſed bone, as before remarked, not being always carious bone; thickened perioſteum will ſometimes occaſion much apparent deformity of a limb, and yet the bone be but little or not at all affected, unleſs by neglect or miſmanagement; theſe are the ſituations of moſt frequent occurrence in practice, and often leave very deformed limbs after the ulceration be healed; ſuppoſing this part of the buſineſs then to have been completed, ſuitable friction, compreſſion, and the nitric acid will finiſh the cure. When ulceration has been extenſive, with great diſcharge and conſiderable debility, the acid at the ſame time as it excites greater action of the abſorbent veſſels, gives increaſed and healthy tone to the ſtomach and whole ſyſtem, its good effects are powerfully ſeconded by the occaſional exhibition of the oxygenated muriate of potaſh. On the ſubject of exerciſe and reſt in thickened legs with ulceration, I have found that where the pain was not great, the inflammation not inordinate, nor the ſores very extenſive, moderate exerciſe facilitated reſtoration, eſpecially where the ſubject was accuſtomed to hard labor or much motion when in health, a circumſtance of habit never to be overlooked. Too great anxiety to keep under or ſubdue inflammation will be miſchievous, becauſe without this ſalutary proceſs, in a certain degree, the great buſineſs of abſorption would fall ſhort of the deſired end. But laſtly, conſiderable diſeaſe ſometimes occurs from the efforts of Nature, to remove even a ſmall bit of bone, by no means bearing a proportion to the extent and ſituation of the offending body to be removed: Could we but aſcertain exactly how much requires removal, and by any means extricate it, the work of the ſyſtem, as to the getting rid of what is become extraneous, would be thus at once completed; in the efforts to effect this it is that new miſchief is added to the old, the former becoming too often the moſt formidable, there being often an amazing ruſh of effort (if I may ſo term it) to all the neighbouring parts; where it can be done, mechanical

chanical assistance may save such a limb from amputation or life from destruction; I mean, where the situation of the growing mischief will admit of timely removal of the diseased part, for the exertions of separation are ever accompanied with the secretion and deposition of new boney matter; this deranges as it proceeds, creates new symptoms of mischief extending farther daily, till at length the limb is condemned to removal, or, if that be impracticable or rejected, death, from exhaustion, ends all.— That these are the inevitable consequences of delay will be readily granted, when it is considered that if a portion from the surface or middle of a bone is, owing to some cause or other, to be thrown off, there must be a chasm formed between it and the sound parts by the necessary preliminary action of the absorbents, in order to detach the now superfluous body; but that this salutary process failing to take place, new boney matter is prematurely and redundantly secreted, covering the place day after day, all the consequences already enumerated therefore must inevitably follow. Where situation of parts and anatomical knowledge will justify the operation, the redundant offensive parts must be removed as speedily as possible, or Nature will be deprived of that assistance which Art certainly has it in her power to bestow; when this is impracticable, all the means before mentioned as promotive of absorption, during the exfoliating process, must be our dependence for expediting the grand business in view. Should this happily be effected, due secretion of healthy particles will soon follow, and of consequence restoration, which, with a sound limb, although not a handsome one, is incomparably preferable to no limb at all. By strict attention to these circumstances as they severally arise, Nature will receive that assistance which it is the proper business of Surgery to give, and her ill directed unavailing efforts to remove disease be conducted to an healthy instead of a fatal termination. The nitric acid will be found to stand in the foremost rank of the sorbentia; sometimes it disagrees a little with the bowels, but this circumstance will be more frequently found to arise from irregularities in food than from the medicine; occasional use of columbo root obviates the inconvenience when the acid alone is to blame; sometimes it passes off too freely by urine, therefore should it be determined principally to the bladder, although diuretics powerfully promote absorption, it may be desirable to check its effects this way occasionally, and that is readily done by exhibiting a few doses of the oxygenated muriate of pot ash immediately before each dose of the acid.

Dr.

Dr. Ferguson, *on the Deafness of Blacksmiths.*

To Dr. BRADLEY.

Sir,

THERE has occurred to me of late ſeveral caſes of perſons affected with Dysecoea, which evidently appeared to be occaſioned by the nature of their employment. Noiſe, eſpecially when violent and ſudden, has been long conſidered, though not the moſt frequent, as one of the cauſes of deafneſs; but I do not recollect of ever hearing before that Blackſmiths were particularly ſubject to any ſpecies of deafneſs the conſequence of their employment; and ſhould perhaps have remained ignorant of this, had not four caſes occurred to me, all of which had a great ſimilarity to each other. The deafneſs had creeped on them gradually. At firſt they became inſenſible to weak impreſſions of ſound, and were not ſo perceptible themſelves of this dulneſs, as thoſe with whom they held converſation. As the deafneſs increaſed, they felt a ringing and noiſe in their ears, which was more or leſs violent at different times; this was ſometimes attended with ſlight vertigo, and pain in the line of the ſutures of the cranium. In one of the caſes the pain was ſomewhat periodical, and very violent. Two of the perſons were between thirty and forty years old, and two of them aged fifty; they were ſtrong men, and excepting this complaint of deafneſs, were otherwiſe healthy. That I might be convinced that the deafneſs was not occaſioned by wax, foulneſs, or any ſubſtance obſtructing the action of the air upon the membrana tympani, I ſyringed their ears with ſoap and water, which I think is moſt proper for this purpoſe; but neither wax, nor any other ſubſtance, could be perceived in the water which was returned from the ear. The patients themſelves obſerved that their ears were in general dry, and that when they picked them, no wax could be perceived. I therefore conſidered the deafneſs to be owing to a paralytic ſtate of the auditory nerves, occaſioned by the noiſe of forging, to which all of them had been in the daily practice of, for many years. One of the caſes was treated as if it had proceeded from this cauſe. Electricity, bliſtering, ſpirituous applications to the cranium, and the injecting into the ears oxygenous air, were the means employed. This being aided by his leaving off the blackſmith buſineſs, was attended with the effect of reſtoring his hearing. The other three perſons were under the neceſſity of continuing at their employment, and therefore little was attempted for their recovery. By giving this a place in the Medical and Phyſical Journal, you will much oblige,

Aberdeen, Jan. 1802. ANDREW FERGUSON.

To Dr. BRADLEY.

Dear Sir,

IF the following ſtatement of facts be not inconſiſtent with the plan of your Medical Journal, may I beg you to inſert it therein. I am, &c.

Birmingham, March 12, 1802. JOHN JOHNSTONE.

As the power of mineral acid vapours to correct contagion has lately become a ſubject of great intereſt and inquiry, we ſhall inſert two extracts, one from an Hiſtorical Diſſertation on Fever, by Dr. Johnſtone, of Worceſter, publiſhed 1758; the other from a Treatiſe on Putrid Sore Throat, by Dr. James Johnſtone, who fell a victim to humanity, in attending the priſoners of Worceſter Jail in 1783, which was then infected with jail-fever.

1. From an Hiſtorical Diſſertation on the Malignant Epidemical Fever of 1756, by James Johnſtone, M. D. London, printed 1758; after recommending divers means for diſ-infecting the air, the author adds:

"The ſteams of vinegar will preſerve the air free from putrefaction, &c. Theſe are the moſt commodious, if not the moſt uſeful methods of acidicating the air; however, thoſe who prefer the mineral acids, may order brimſtone to be burnt; or may raiſe the marine acid very eaſily, by putting a certain quantity of common ſalt into a veſſel kept heated upon a chaffing diſh of coals; if to this a ſmall quantity of oil of vitriol is added from time to time, the air will be filled with a thick white acid ſteam." Page 51.

2. From a Treatiſe on the Malignant Angina, by James Johnſtone, jun. M. D. Worceſter, printed in 1779. "As it is impoſſible too cautiouſly to guard againſt the effects of ſo putrid a contagion, the *acid air* or ſpirit of ſalt ſhould be kept riſing continually in the room, by pouring oil of vitriol once or twice a day on ſea ſalt placed in a convenient veſſel. This method of correcting vitiated air was ordered long ago by my father, &c." p. 110, 111.

It is ſingular that this ſame method was afterwards uſed by the celebrated Guyton de Morveau, for correcting the putrid exhalations of dead bodies that impeſted one of the churches of Dijon. Vid. Mem. de l'Acad. R. des Sc. for 1783 and 85.

And it ſtill remains undecided, whether the diffuſed vapour of muriatic acid be not equal in efficacy, and equally convenient in application, with the nitrous acid vapour, for correcting the vitiated or infected air of ſhips, priſons, and hoſpitals.

On

On DYSPEPSIA.

To the EDITORS of the MEDICAL and PHYSICAL JOURNAL.

GENTLEMEN,

THE experienced medical practitioner will admit that a large majority of chronic diseases, and not a small proportion of those of an acute description, owe their origin to indigestion; nor will it be denied by the most intelligent of the profession, that the difficulties in the way of restoring the stomach to a due performance of its digestive function, are such as often to baffle the most approved modes of treatment. It frequently occurs that the ordinary tribe of stomachic and tonic medicines, usually prescribed in dyspeptic affections, affords at best but temporary relief, and that sometimes, by their undue stimulant influence on the stomach, they indirectly induce an additional degree of debility on that organ, with the accustomed train of hurtful consequences, such as nausea, anorexia, and systematic atony. It has repeatedly happened to me to observe an irretrievable progress in dyspeptic affections during the protracted and inefficient employ of stomachic medicines; and on these occasions the failure of benefit has apparently arisen more from an implicit reliance on the *sole* efficacy of these agents than on the irremediable nature of the affection.

An inveterate distrust in any thing like uniform medicinal efficiency in the infinitely diversified nature of organic susceptibility, first induced me to try in obstinate cases of indigestion the effect of a rigorous attention to a certain plan of domestic management, in conjunction with the usual treatment. The advantages resulting from this procedure have enabled me duly to appreciate the importance of the co-operation, and have farther warranted me in expecting that its *solitary* adoption would in general render the conjoint employ of medicine unnecessary in the cure of dyspeptic disorders.

The treatment alluded to, consists in cautiously avoiding mechanical impediments to the process of digestion, and in counteracting that stomachic languor and irritation which prevent the salutary secretion of gastric juice; an agent so indispensably necessary to the due decomposition and assimilation of alimentary substances.

Extensive experience has now fully confirmed the important fact, that the worst states of Dyspepsia arising from default in stomachic excitability, and gastric secretion, unaccompanied

with organic læſion, may be effectually remedied by an appropriate regard to the quantity of diet taken at a time, to ſuitable maſtication, friction over the region of the ſtomach, and the avoidance of coſtiveneſs. The mode of practically applying the conjoint influence of theſe ſeveral aids, conſiſts in limiting the quantity of aliment taken at one time to two ounces, in confining it chiefly to animal food, particularly mutton and pork, in maſticating it ſo long that it may be reduced by comminution and ſalival commixture to a ſemi-fluid ſtate. This may be repeated once in three hours. No diluent fluids ſhould be taken with the food, nor until one hour after each repaſt, leſt the ſolvent property of the mixed ſaliva ſhould be thereby diminiſhed; nor ſhould the quantity of fluid taken at once ever exceed half a pint, nor be repeated oftener than at intervals of three hours.

About half an hour before ſwallowing the portion of aliment propoſed, briſk friction ſhould be performed with a fleſh bruſh over the region of the ſtomach during at leaſt ten minutes; a ſimilar operation ſhould alſo follow it. If the irritability of the ſkin over the ſtomach ſhould diſpoſe it to inflame, or to throw out eruptions by repeated rubbing, (which ſometimes happens) the ſurface may be ſmeared with olive oil previouſly to performing it; on the contrary, ſhould neither a glowing ſenſe of warmth on the ſurface, nor any other ſenſible impreſſion be made by the friction, either powdered muſtard-ſeed, pepper, ginger, or ſpirit of wine, may be ſprinkled over the ſkin before the application of the fleſh bruſh.

Flatulent diſtenſion, and the aching uneaſineſs of the ſtomach connected with it, are ſpeedily ſubdued by the ſtimulant effect of the friction; and if the precaution be obſerved of rubbing circularly from right to left, the redundant gaſeous ſubſtances extricated, and accumulated in the ſtomach during indigeſtion, will be extruded at the pylorus, or lower orifice of the ſtomach, and tranſmitted through the inteſtinal canal; while in the contrary, or a more promiſcuous direction, they may eſcape by the cardia, or upper orifice, and be forced up the œſophagus in ſonorous, painful, and unpalatable eructations. An habitual attention to the removal of coſtiveneſs will powerfully aid the beneficial effects of this treatment. No remedy will be found ſo effectual in ſubduing this inſidious and deſtructive enemy to health in general, and to digeſtion in particular, as inſtituting a regular cuſtom of periodically ſoliciting an evacuation by voluntary and perſevering effort. The morning is the proper ſeaſon for the attempt; it ſhould on no occaſion be omitted, and the trial ſhould be proſecuted during at leaſt fifteen minutes, if the periſtaltic power be not earlier excited to adequate

quate motion. A week has been unavailingly employed in this endeavour, but the propoſed effect has been attained within a fortnight; and one month has in numerous inſtances fully eſtabliſhed an *habitual* call to inteſtinal evacuation, under circumſtances that previouſly required the almoſt daily uſe of aperient medicine.

Were it neceſſary to illuſtrate the conjoint efficacy of this treatment by particular caſes, it would be in my power to go into a much more extenſive detail than you may think neceſſary to admit in your publication. It may however be proper to remark, that a vaſt variety of dyſpeptic affections thus managed, has been recorded by me, many of which had been the cauſe, while others had been the effect of chronic maladies, and the whole of them had been more or leſs unſucceſsfully combated with the uſual medicinal means of relief. Caſes of a deſcription ſo deplorably forlorn have been remedied by this management, that it would be much more ſatisfactory to me to have a ſimilar effect repeated in the experience of others, than by ſtating them to riſk incurring any doubt of the credibility of the relation. Nor has the ſucceſs alluded to been partial, or ſelected; a degree of uniformity has indeed marked the ſalutary influence of the practice but rarely found in the medicinal treatment of diſeaſe.

In ſome caſes, the cure has been both perfect and permanent; in others, unexpected relief has been afforded; and in all, ſufficient benefit has been rendered to encourage an unwearied proſecution of the means.

In reflecting on the mode of remedy here propoſed for dyſpeptic affections, it may be allowable to obſerve, that the faſhionable employ of medicine on all occaſions of diſeaſe, has often led to an unguarded neglect of co-operative aid from domeſtic and ſelf-management; as if the powers of life, and the peculiar conditions of health, were not more under the dominion of *ordinary* than *extraordinary* agents; as if the ſtomach, for example, were not more likely to return to its regular digeſtive function, when ſolicited by the congenial influence of an approach to its natural ſtate, than when diſturbed, tortured, and all but diſorganized, by the almoſt intolerable ſtimulant impreſſions of *reputed* ſtomachic medicines; and theſe too employed (as if the curative intention were to be accompliſhed by an abſolute *fiat*) under a lax regard, or even total indifference to collateral aſſiſtance.

The healing art conſiſts in inſtituting the moſt appropriate modes of curing diſeaſes, not in uniformly wielding againſt them medicinal ſubſtances.

If health can be regenerated by regulations calculated to re-

 produce

produce its indiſpenſable conditions, the ſalutary end of medicine is happily attained, without the loathſome neceſſity of reſorting to the employ of noiſome drugs.

Without wiſhing unduly to curtail the multifarious extent of the materia medica, humanity, it may be allowed, muſt triumph in every fair opportunity of ſubſtituting domeſtic for medicinal remedies.

While the dyſpeptic patient will be ſatisfied with deriving the deſired benefit from the treatment here recommended, the philoſophic medical practitioner will readily explain the way in which ſalutary conſequences are likely to reſult from its employ. The function of digeſtion is perhaps more ſcientifically underſtood than any other in the animal œconomy. The importance of the gaſtric ſecretion is admitted, and a due ſupply of ſaliva is alſo known to be eſſentially requiſite in facilitating the changes that are to be effected on alimentary ſubſtances in the ſtomach.

The ſupply of the gaſtric juice and ſaliva, in due quantity and quality, will depend on the healthy excitability of the ſtomach and ſalival glands; thus, in impaired digeſtion, the attention ſhould be chiefly directed to adjuſting theſe neceſſary conditions.

In directing a limited quantity of food oppreſſion is obviated, the motive powers of the ſtomach are adequately excited and unclogged, while the elaborate maſtication recommended, and the conſequently copious commixture of ſaliva, leave leſs to be accompliſhed by the decompoſing influence of the gaſtric juice.

Friction on the abdomen excites motion, which, by aſſociated efficiency, is propagated to the ſtomach, and ſerves to impart additional activity to the digeſtive proceſs,

Neither ſimilarity of ſtructure, nor direct continuity of connection, ſubſiſts between the cuticular ſurface over the region of the ſtomach, and the ſubſtance of that viſcus, yet an intimate conſent of motive power obtains between theſe ſeveral parts, which explains how topical friction extends ſalutary influence to the organ itſelf.

It is a ſuccedaneum for corporeal exerciſe, and by being concentrated on the ſtomach, proves a more direct remedy in the removal of flatulency, and other morbid inconveniences ariſing from indigeſtion, than could be afforded by a more general exertion of the ſyſtem.

The fertile cauſes of Dyſpepſia are repletion and inaction. The combined tendency of theſe evils is to induce both ſtomachic and ſyſtematic oppreſſion. The neceſſary demand for nutriment is varied by the degree of voluntary exertion, ſuperadded to the involuntary motions of life; if the former be too limited

limited, morbid repletion, both locally and generally, can only be avoided by a moderate use of diet; on the contrary, if the habitual exercise be carried the length of inducing frequent perspiration, and muscular fatigue, the exigencies for alimentary support will be proportionately great; hence an exact ratio subsists between the exhaustion from exercise and the want of nutritive supply. If this balance, so accurately struck by Nature, were uniformly sustained in the conduct of mankind, Dyspepsia, and the hydra train of mischief it is liable to produce, would scarcely be known in the catalogue of human afflictions.

The plan of remedying indigestion here recommended on the authority of abundant experience, is further warranted by the analogy it bears to the agency usually obtaining in the process of natural digestion. In the one case, stomachic oppression is obviated by small portions of food taken at a time, by assiduous mastication, salival commixture, and intestinal regularity, while digestion is much promoted by abdominal friction; in the other, or the ordinary performance of this function, personal exercise becomes a substitute for these precautions; it accelerates the animo-chemical combinations, and decompositions, which constitute the motive evolutions of life; and thus requires such an extent of nutritive supply from the digestive function of the stomach, as at once obviates morbid plenitude, and induces salutary hunger.

Chilton Super Polden,
March 25, 1802.

I am, &c.
ROBERT KINGLAKE.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

IF you think the following description of an Instrument, which I have contrived for the purpose of extracting a Stone from the Bladder, worthy a place in your very useful Publication, I shall be obliged to you to notice it the first convenient opportunity.

It consists of an instrument made of iron, about 14 inches long, with a curve towards the point about 3 inches in length, so as very much to resemble a common Sound, which I will, to enable me to describe with more brevity, call the Guide, and a piece of bladder, about 20 inches long, and 5 broad at the middle, but gradually becoming narrower, so as at each end to be only 3 inches; this I will, for the same reason, call the Sling.

The

The ſling, or ſlip of bladder, being properly prepared by being ſoaked in warm water, and afterwards well oiled, one end of it is to be ſewed round the extremity of the guide, where there are two ſmall holes for that purpoſe, which after the inciſion has been made into the bladder in the uſual way, is to be introduced with the point turned towards the right iſchium; it is then to be carried forwards along the inferior part of the bladder till it has got beyond the ſtone, when the extremity of the guide to which the ſling is attached is to be raiſed and brought back over the ſtone, by which means the ſtone will be embraced by the ſling, and may, I conceive, be extracted. I need hardly obſerve, that I ſhould not propoſe to make uſe of this apparatus in preference to the forceps, excepting in caſes where the ſtone is found to be very large. In ſuch caſes, provided upon trial it ſhould be found practicable to extract a ſtone with it, two very great advantages would I think be attained by it; in the firſt place, the room which the forceps muſt neceſſarily occupy would be got rid of, and in the next the ſling, or piece of bladder in which the ſtone is enveloped, would afford conſiderable protection to the parts againſt the ſurface of the ſtone in its paſſage, which deſirable object would probably be promoted by means of a piece of tape fixed to each ſide of the ſling, about the middle, to prevent its folding back during the extraction.

The difficulty of meeting with an opportunity of making trial upon ſuch occaſions on the dead ſubject, in the country, will, I hope, plead my excuſe for offering this contrivance to the conſideration of your readers, without having firſt put it to the teſt.

I am, &c.

Lewes, March 2, 1802. T. HODSON.

To Dr. BRADLEY.

Dear Sir,

I Encloſe for your Journal, if you judge it of conſequence enough to be laid before the public, the cure of Geo. Alliſon, which happened under my obſervation while I lived at Stockton upon Tees.

I am, &c.

Isle of Wight, March 29, 1802. ROBERT JACKSON.

A Case of Sphacelation of the Intestine, &c.

George Allison, a ſailor, (a young man of eighteen or nineteen years of age,) working one day with more than uſual exertion

exertion on board of ſhip, was ſeized ſuddenly with a pain in the left ſide, apparently a cramp or ſpaſmodic affection of the muſcles of the abdomen, connected perhaps with ſpaſm of the inteſtine. The ſhip at the time was going out of the harbour, on a voyage to Hamburgh. There was no ſurgeon on board; and conſequently nothing was done for him during the paſſage. He ſuffered great pain; and when the veſſel arrived at her port, his condition was deplorable. A ſwelling was perceivable in the left groin, at the ring of the abdominal muſcles, the uſual place of rupture. It was in fact ſuppoſed to be rupture; and various, and even violent means were employed for the reduction of it; but no object was attained. The lower bowels were emptied frequently by means of glyſters; and ſtrong purgatives were given repeatedly, but without effect. For near ſix weeks, the diſtance of time from the attack, at which he returned to Stockton, and applied for relief at the Diſpenſary, he had no effective evacuation by ſtool. The ſufferings were great, and the caſe appeared ſingular. The belly was not inflated or diſtended generally; but the fleſhy part of the abdomen being waſted, thin, and clinging to the back, permitted the ſmall inteſtines to be traced through their whole extent, knotty and hard, as if crammed with matters which could not find a paſſage onwards. Together with this, there was obſtruction to the act of ſwallowing, connected with a ſenſation at the throat, as if the common motions and progreſs in the alimentary canal met with interruption; the tongue and fauces ſhewed an eryſipelatous redneſs with numerous apthous ſpots; the emaciation of body was extreme; the ſkin was harſh and dry; the pulſe regular, but ſlower than natural, not exceeding 45 in a minute. A ſwelling appeared originally at the ring of the abdominal muſcles on the left ſide. Swelling and inflammation had now extended to the ſcrotum on both ſides, but more particularly on the left, where a fluctuation of matter was evident. The pain of diſtention aggravated the ſufferings; and it was thought adviſable, as a means of affording temporary relief, to give iſſue to this diſtending matter by opening the tumour in the moſt eligible part. This was done accordingly. A large quantity of matter was diſcharged, offenſive to the ſmell, but without appearance of real fæculence. The pain from diſtenſion being thus taken off, a ſhort reſpite and ſome hours of reſt were the conſequence; but there was no change in the ſtate of the original diſeaſe. The difficulty and obſtruction in the act of ſwallowing ſtill remained; and the ſmall inteſtines might ſtill be traced in their courſe by the marks of knotty hardneſs. There was now, at intervals, a growling noiſe in the bowels; and in leſs than thirty hours after the opening

opening of the tumour, peafe, bifcuit, and other things, which had been taken in by the mouth for the laft fix weeks, flowed out from the orifice, as from a fluice, with great force, and in quantity fufficient to fill a common chamber-pot. There was alfo about this time a difcharge of urine, which had been fuppreffed for thirty hours or more, and a natural evacuation by ftool, which had not happened for near fix weeks. The diftenfion of the fmall inteftines was now removed; and though the difficulty of fwallowing did not ceafe immediately, nor did the eryfipelatous rednefs and apthous fpots of the fauces immediately difappear, yet there was foon fome defire for liquid food; the pulfe became quicker and more frequent, rifing even as high as 100 in a minute, but without any febrile heat or other fign of fever. The difcharge of fæculent matter continued at intervals, for a few days, through the opening at the groin, accompanied generally with a natural ftool; it diminifhed gradually, and ceafed entirely in lefs than eight days; the natural paffage was reftored, and the evacuations became regular; the eryfipelatous rednefs and apthous fpots of the fauces gradually vanifhed. The fcrotum, which was inflamed through its whole extent, feparated completely on the left fide, from the ring of the mufcle downwards, leaving the tefticle bare, loofe, and dangling, without any fupport but that of its veffels. The general health improved gradually. He recovered his flefh and ordinary appearance; and in the courfe of two months, the tefticle, having been drawn up into the groin, was enveloped in a fpongy covering, which fecured it from injury. At this time there only remained a long puffy rifing, extending upward from the ring of the abdominal mufcle; but there was no complaint of inconvenience, or impediment in the common functions of the parts; this puffy rifing at laft difappeared; and the recovery of health, and of all the functions was fo perfect, that he performed the duties of a common failor; and appears, by late information, to have died in the Weft Indies, in the courfe of the war, on board of a king's fhip.

The cafe of Allifon is perhaps one of the moft fingular upon record. It is now fubmitted to the public; but it is not fubmitted fo directly with the view of conveying practical inftruction, for it contains not much, as of recording the hiftory of an accident, peculiar in its circumftances, and, as far as my knowledge extends, of an event without parallel. The detail is correct. Medical men may be able to find an explanation of confequences fo unufual. I fhall only take the liberty of obferving, that there was probably fome complication of accidents in the cafe, fome preffure, or intus-fufceptio of the gut, near the ring, as well as actual protrufion, the extent of which could

could not be aſcertained, at the time he applied for relief at the Diſpenſary. As a cauſe to which the complaint was attributed, he mentions a draught of cold water, which he ſwallowed greedily while heated at work; the pain reſembling cramp or ſpaſm in the abdominal muſcles of the left ſide, and perhaps in the coats of the inteſtine, was the conſequence. The violent and harſh means employed for the reduction of a ſuppoſed rupture, brought inflammation upon the integuments at the ring of the muſcle, and on the ſcrotum of the left ſide; this inflammation brought in its train adheſion and ſuppuration. An abſceſs was formed. It was opened, without any view to ultimate effect upon the original diſeaſe; but it is probable, that the preſſure being thus removed from the protruded inteſtine, the rupture of its coats and conſequent diſcharge of its contents was thereby accelerated: An evacuation by ſtool ſoon followed the diſcharge of fæces by the wound in the groin, giving reaſon to believe that an intus ſuſceptio, or ſome obſtructing preſſure upon the gut, muſt have alſo taken place; which being now removed by the retrograde motion and diſcharge of fæces through the wound, the natural channel was again reſtored. The puffy riſing, which remained ſome time at the ring of the muſcle on the left ſide, after all ſymptoms had ceaſed, appeared to be owing to dilatation of the inteſtine by diſtenſion from accumulation of contents, during the obſtruction of the paſſage. The teſticle was looſe and dangling for ſome time, without covering and without ſupport. It was doubted, whether or not it would be adviſeable to remove it, as it threatened to be an inconvenience; but in a ſhort time it was drawn up into the groin, and covered with a ſpongy coat, an event which I did not foreſee.

To Dr. BATTY.

Sir,

IF you ſhould deem the following worthy a place in your valuable Journal, you will much oblige me by inſerting it.

I am, &c.
HENRY WATKINSON.

Aſhton, near Warrington,
March 3, 1802.

The Inverſio Uteri is a complaint that is noticed by moſt writers on Midwifery, as ſometimes occurring after or along with the extraction of the placenta, and as uſually very ſoon terminating

terminating fatally, if not immediately reduced, and even then as being attended with the greatest danger. But few authors, and I believe none of our late ones, on either Midwifery or Surgery, have mentioned the disease as occurring at a different period, originating from a different cause, and existing for a long period of time in an inverted and prolapsed state without proving fatal. Some of the older writers have, I believe, mentioned it, and have even ventured to amputate the part, but the fatal termination of which has deterred others. A few years since a case occurred, which is related in Duncan's Annals of Medicine for 1799, where a tumour was attached to the fundus uteri, which, by degrees, inverted that organ, some days after labor, and which it was found impossible to reduce; the uterus, therefore, remained in that state a fortnight, when a considerable discharge and hectic state threatened the life of the patient; and it was found necessary to amputate it, which was performed, and the patient perfectly recovered.

In the course of my practice I have met with two cases of Inversio Uteri, both of which occurred at a period very distant from labor, and had continued so for a number of years. Of the history of the first I know little; it occurred to me while I was a resident of Ormskirk, and I have not now an opportunity of making further inquiry about it. Of it, I only know, that the womb was completely inverted, about the size of a fist, hung pendulous without the os externum, but might be readily returned within it, in its inverted state, but soon passed through again. The woman was about sixty years of age, had had the complaint several years, was able to walk about, and even travel miles into the country; but there was a considerable thin discharge from the surface, which weakened and distressed her a good deal.

The subject of the second case was the wife of Robert Scotson of Lowton, in this neighbourhood. This woman had had the complaint about four or five years, and was about fifty-four years of age. It took place during a long protracted and very severe mænorrhagia about her fiftieth year.

On her first application to me, she made me understand it to be a prolapsus, and I promised to relieve her by a pessary; but on her sending for me for that purpose some time afterwards, I found her laboring under a suppression of urine, which had occasionally occurred to her; and on examining the uterus, I found it completely inverted and about the size of my hand. It might readily be pushed within the os externum, but on walking, soon came down again; and although it might be kept up, by means of a pessary, which, for a time, made her much more comfortable and capable of walking, yet, the size of the tumor rendered

rendered that instrument of little use, as on the least exertion or exercise, its pressure (in that situation) upon the urethra and bladder very soon brought on a return of the suppression of urine. Under these circumstances, therefore, little could be done, except relieving occasional symptoms, and I saw no more of her for some months. At the end of this period I saw her again, and found that in the interim, a fresh train of symptoms had taken place; from some cause, a violent inflammation had attacked the uterus, it had increased to double the size, and had become gangrenous in several parts. I now found it near the size of a new-born infant's head, gangrenous and sloughing in several parts, and the greatest part of its surface discharging a copious fœtid fluid. It hung nearly half way down her thighs, and had a pretty long neck, about the thickness of my wrist, which was formed by the inverted vagina, and which, in one place, near its attachment to the uterus, had mortified through, and from which a very profuse hæmorrhage had taken place a few days before. My patient was now in a very low, weak, emaciated state, with hectic symptoms; her pulse was weak and frequent, her appetite gone, and she was almost incapable of taking wine. She constantly lay upon her back, and was not able, from the pendulous state of the tumor and her weak state, to be got up, even to answer the calls of Nature, and upon the whole she appeared to be declining very fast. I explained to her and her friends her dangerous situation, and mentioned to them that amputation of the womb, although very dangerous and uncertain, was the only probable means of saving her life. Of this, they determined to consider a few days, when, during that time, a humane clergyman in the neighbourhood brought Dr. Moss of Warrington, to see her, who, concurring in what I had said, proposed to meet me in a few days, that he might perform the operation. At the appointed day we accordingly met, and after lying her upon a table, on her back, we tied a ligature very firmly about half way of the neck, and placed another loosely a little higher up, to tighten if necessary, and then with a scalpel I divided its neck close to the uterus. We now proceeded to take up the divided vessels, but on a sudden the divided vagina, which had formed the neck of the tumour retracted, threw off both the ligatures, and returned itself into its original situation, within the os externum. An hæmorrhage now took place, which Dr. Moss endeavoured to restrain by pressure within the vagina; in doing which, an abscess burst, and discharged a quantity of very fœtid matter. The hæmorrhage by degrees abated, and although (I think) she did not lose more than a pint of blood, yet, as it was arterial, and the patient too weak to bear such a discharge, she became very faint; a

cold

cold clammy ſweat broke out, her pulſe was weak and tremulous, ſickneſs took place, and ſhe expired in about two hours.

Although the above caſe turned out ſo unfortunately, yet as a rare inſtance of the diſeaſe, I think it may be worthy of record; and although the practice offers nothing new, yet I think it may prove a caution to other practitioners, under like circumſtances, to take more pains to ſecure the neck of the tumour, formed by the inverted vagina, from retracting, before the veſſels are properly ſecured. Before the operation we had propoſed to paſs a firm ligature, by a needle, in a crucial manner, through the middle of the upper part of the neck, to ſecure the divided end the more certainly; but gave it up, as we conſidered the ligature round the neck to be ſufficient. If this plan had, however, been made uſe of, I am inclined to think that the hæmorrhage might have been prevented, and *perhaps* the life of the patient ſaved.

Of the cauſe and origin of the inverſion in this laſt caſe, I think there can be little doubt; it ſeems to have been occaſioned by the relaxed ſtate of the os uteri, and perhaps of the uterus itſelf, occaſioned by the long protracted hæmorrhage, and to be excited by the preſence of coagula (which muſt neceſſarily have formed during that period,) and along with ſome of which it might probably have become inverted.

P. S. Since drawing up the above ſtatement, I ſent a copy to Dr. Moſs for his peruſal and approbation; he has returned it, and ſays, "You have my full conſent to publiſh it, with my name as therein expreſſed;" and then adds, "I recollect that an artery which I had once taken hold of with the tenaculum, ſhewed no diſpoſition to be drawn out for tying; from which I ſuſpect, *at least*, there would be ſome difficulty in paſſing ligatures round the arteries of this part. How far might it be proper to apply the actual cautery in ſuch a caſe? I do not think the parts under theſe circumſtances are very ſenſible, the patient did not complain in the operation.

To Dr. BRADLEY.

SIR,

WHEN I volunteered my ſentiments on the diſpute between Mr. Crowfoot and Dr. Langſlow, which then appeared as a medical queſtion, and was ſubmitted to the free diſcuſſion of medical readers, I ſet out with that ſort of diffidence which every

every candid inquirer after Truth knows how difficult it is to find her out, when encumbered with the ſyſtematic jargon and theoretical rubbiſh with which ſhe is ſo oftentimes enveloped. I openly ſubmitted what I had to ſay, to the opinions and animadverſions of better judges than myſelf, more eſpecially as *Apoplexy* muſt be allowed to be a diſeaſe fatal in its nature, and ſtill involved in doubt and obſcurity. It was to the *impartial* and *unbiased* part of profeſſional readers that my Remarks were offered, and not to the parties concerned; for, as it will plainly appear that I have eſpouſed the cauſe of neither of them in particular, and profeſſed myſelf to be of no party, I conceived myſelf at full liberty to canvaſs the ſtatements of theſe gentlemen with that ſtrict juſtice and impartiality that ought ever to actuate men of diſpaſſionate and liberal diſpoſitions. When individuals, differing in opinion, have conſented to ſubmit their diſputes to the deciſion of perſons disintereſted, as appears clearly from what has been offered by Mr. C. and Dr. L. to the inveſtigation of the Republic of Medicine, or Medical Public, it might naturally be expected, particularly where ſuch deciſion has been given with candour, liberality, and a temper of mind diveſted of perſonal animoſity, that it ſhould be acquieſced in; and where it has been enforced by the collateral or united opinions of others, equally uninfluenced by party motives, and wedded to no particular ſyſtem or doctrine, it is manifeſtly obvious that a ſtrict regard to the nature of the ſubject in queſtion, and an ardent deſire of developing what cannot but be eſteemed a doubtful, myſterious, and perplexing diſeaſe, muſt be aſſuredly intereſting, not only to thoſe of the medical profeſſion, but eminently beneficial to mankind. It is much to be regretted, after an appeal to the profeſſion at large, with a view of collecting their ſentiments on a doubtful ſubject, that men, who by their acquirements, and the rank they hold in cultivated ſociety, affect to profeſs themſelves open to conviction, and yet degrade their underſtandings by ſtill adhering to errors, where ſuch are by no means juſtly tenable. If a deciſion happens to fall out contrary to their vanity, not to mention the dubiety of their doctrines, and theſe advanced without mature and deliberate reflection, they unfortunately forget that while they tenaciouſly hold them, it is the greateſt of human weakneſſes; and that they ſhould remember, that inſtead of conquering their own imperfections, they ſuffer thoſe very weakneſſes or imperfections to conquer themſelves.

Can any thing be more ſtrikingly contraſted to the conduct of Dr. Langſlow, than that of the illuſtrious and ingenious Dr. Baillie, a gentleman than whom no one more juſtly occupies a more reſpectable rank in his profeſſion, and where it is difficult

difficult to ſay, whether he has not gained more laſting credit, and I may hope general approbation, in his recanting his error or miſtake, than Dr. Hull, who ſo fortunately and judiciouſly explained it.* In this he has laudably imitated the example of Hippocrates, the prince of phyſicians, who, by acknowledging he had miſtaken a *suture of the cranium* for a *fissure*, has very juſtly immortalized himſelf. Nor have there been wanting various other inſtances of this ſort, which cannot but be known to many of my readers verſed in Medical Biography, and whoſe names it would be needleſs to point out, who ſo far from conſidering themſelves degraded by acknowledging their errors and imperfections, that they have deemed it as the greateſt dignity accruing to human nature, to be made ſenſible of the fallacy and uncertainty of that ſort of ſcientific knowledge, which can be but accounted as ſpeculative.

I think I may venture to preſume, that not a few of my readers will agree with me, that it would have reflected no great diſhonour on Dr. L. and tended greatly to have done away any miſtaken prejudice that happened to prevail in the mind of Mr. C. towards him, if, after the ſpeedy relief the patient experienced, he had barely admitted it as poſſible that he might have been miſtaken in his ideas of *extravasation*, or even *affusion*, particularly in this very caſe, which, at the beſt, muſt be allowed as doubtful. But, no! medical vanity was here too predominant, Dr. L. conſiderered it as degrading to his conſequence to condeſcend even to allow an Apothecary or Surgeon to doubt; and when he found *extravasation*, which, according to his own definition in his original Statement, vol. vi. p. 561, of the Med. and Phys. Journal, implied *blood*, and that this ſeemed not quite tenable, he then reſorts to ſerum or lymph, by adopting thoſe of *exudation* or *effusion*. Even his Explanation in vol. vii. of Med. Journal, p. 79, which is calculated to do away *extravasation*, which, as far as I can comprehend from both original Statements, appears to have been adopted by Dr. L. and which Mr. C. in his judgment, could not admit in the Caſe diſputed, how eaſy was it then to have terminated this diſpute? Now it cannot be ſatisfactorily and unequivocally refuted by Dr. L. that no ſuch diſeaſe as the Nervous Apoplexy of Dr. Kirkland exiſts, and which, according to the *erudite*, *ingenious*, and *liberal* diſquiſition of *Pyrrho*, appears to have been adopted or glanced at by ſeveral medical authors of reſpectability, not even excepting the great Cullen himſelf,

* Medical Journal, No. xxxv. p. 32. No. xxxvi. p. 104.

himſelf,* Dr. L. can have no juſt reaſons or pretenſions to reject as *futile*, what to many, equally learned and ingenious, though not quite ſo aſſuming, medical practitioners, appears an abſolute and even neceſſary diſtinction from that of the *sanguineous* and *serous* Apoplexy,† and which Dr. L. has, perhaps with more zeal than prudence, conſidered as one and the ſame, by admitting or allowing, that a ſimilar mode of treatment might be applied in both caſes. I will readily admit Dr. L. is perfectly right where he quotes my having ſaid, that "the ingenious Doctor Kirkland conſidered that ſort of Apoplexy *to which Dr. L. alludes*, to be a diſeaſe *sui generis*." It was to the caſe in diſpute that I meant to apply this remark; and this was advanced from Dr. K's work, with a view to prove that I believe Nervous Apoplexy does exiſt, although, at that time, I knew not of its being the opinion of Mr. Crowfoot. It is enough for me that Dr. L. has ranked me in the number of ſuch *Ignoramuses* as the late worthy Dr. F. and Dr. K. together with Dr. G. and his antagoniſt Mr. C. and many others who may be of this opinion: But he ought to recollect, that although I have differed with him in his doctrines and opinions reſpecting Apoplexy in general; I mean, in ſuch caſes as have not terminated fatally, or where no *hemiplegia* ſupervenes, it is obvious however that I have united with him in the propriety of the mode of treatment he adopted in the Caſe diſputed, and even allowed it might be applied, with ſome exceptions, generally: And as I have given no ſanction to the uſe of emetics, not even in Nervous Apoplexy, I ſhould think Mr. C. might, with as much propriety, have played me the *tune* of *St. Vitus's dance* as himſelf; but this I perceive he has not done, although in coinciding with that gentleman in his idea of *extravasation*, *exudation*, *&c.* I intended him no compliment: It was my decided opinion, and was ſo prior to the diſpute in queſtion. But I forgive Dr. L. for his *wit*, though I confeſs I prefer *wisdom* before it.

Dr. L. in his Anſwer to Mr. C's Statement, No. xxxiv. of Med. Journal, has given us the old Latin proverb, *Nemo mortalium omnibus horis sapit*; but whether he included its application to Mr. C. or himſelf, it is not for me to determine: certain however it is, that this *cap* would have fitted even the great *Solomon* himſelf. I cannot but own, however, in peruſing the Doctor's Anſwer to my Remarks on his and Mr. C's Statements,

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* Firſt Lines, vol. iii.

† Med. and Phys. Journal, vol. vi. p. 561.

Statements, certain parts of which he has singled out in detachments as the most suitable to his purpose, and with a view of exercising his sarcastic wit, I had much to do to repress my risible muscles; yet, when I reflected seriously on the importance and dignity of the subject, the strict propriety and etiquette which ought to be adopted by men of liberal and enlightened principles, in disputations in which the benefit and happiness of the human species seem evidently implicated, I could not help feeling with regret the infinite pains and trouble Dr. L. must have taken, to hunt out Mr. C's supposed literary assistant, Dr. G. in the Norfolk and Suffolk villages,* and whom he was so anxious to have dragged into this Controversy, which he, Dr. G. it seems, perhaps more prudently than myself, carefully avoided, and where it appears Dr. L. must have gossiped no inconsiderable part of his invaluable time; and this is the more astonishing, as he repeatedly complains of his being engaged by his *professional avocations*, which would induce me to imagine he had monopolized nearly the whole of the medical practice.

If I have declined entering into a farther contention or dispute with Dr. L. in his *serious* comments on certain parts of my Remarks, he must impute it to my aversion from traversing repeatedly the same paths; and as this has *already* been done by the elegant, enlightened, and candid *Pyrrho*, whose dispassionate and worthy to be imitated mode of discussion I wish Dr. L. *for his own sake*, to adopt; and moreover, feeling myself *unwilling*, or, if it please Dr. L. *unable* to answer him; for he has not scrupled to assert, on account of Dr. G's silence to some of his questions, he, Dr. L. "trusts the public will naturally infer, that what he has there advanced is unanswerable,"† he is at full liberty to impute to me the same incapability. In any case where literary acumen, and a strict adherence to the subject in question, combined with the utmost accuracy of *perception*, is requisite, that man must be regarded as an object of peculiar commisseration who, instead of bearing in mind these important requisites, *indulges* in vanity, and exhibits to the world all the flatulency of ill-concocted erudition. This Reply to Doctor Langslow might, prior to this, have been written and sent to the Medical and Physical Journal, had not my *professional avocations*, *lectures*, and certain papers *preparing* for the press, prevented me; nevertheless, I am not without hopes,

* Med. and Phys. Journal, No. xxxvii. p. 274, et seq.
† Med. and Phys. Journal, No. xxxvii.

hopes, *the moment Dr. L. has a little leisure*, he will certainly favour us with his promiſed work on Apoplexy.

I am, Sir, yours, &c.

Sunderland, April 10, 1802. G. WILKINSON.

P. S. In reply to Mr. Atkinſon's polite query in No. 37, Med. Journal, reſpecting frothing at the mouth, Mr. W. admits he is *incorrect*, and that this is more *decisively characteristic of Epilepsy*. Spaſms of the muſcular ſyſtem, however ſlight, may be conſidered as ſuch, in order to diſtinguiſh them from convulſions; Dr. Baillie allows of *convulsive motions*, ſee Appendix to Morbid Anatomy; and I think Dr. Cullen the ſame, ſee Firſt Lines, vol. iii. Even in the Caſe diſputed, it appears from Mr. Crowfoot's Statement, that the patient was *convulsed*, ſee Med. Journal, vol. vi. p. 549; Mr. W. nevertheleſs, aſſures Mr. A. that in the caſe of the man, aged 63, deſcribed by him in vol. vii. p. 145, the muſcular ſyſtem was ſtrongly agitated, i. e. comparatively. Mr. W. can ſee no very material reaſons why theſe ſymptoms ſhould be *decisively* characteriſtic of Epilepſy; all allow theſe two diſeaſes to be ſo nearly allied as not always to be correctly aſcertained, but with the exception that one uſually attacks *youth*, and the other perſons advanced in life.

To the Editors of the Medical and Phyſical Journal.

Gentlemen,

I Now return to anſwer ſome particulars of Dr. Langlow's paper, (Vol. vii. p. 281.) Univerſity honors, even when *regularly* and *fairly* obtained, certainly do not ſanction intemperate language in the poſſeſſor, no more than riches the perpetration of crimes. The Doctor muſt be ſenſible that thoſe obſervations at the concluſion of my firſt communication on Apoplexy, cannot reaſonably be applied to every gentleman in poſſeſſion of a degree! I have the higheſt veneration for many, whoſe talents and genius give luſtre to the profeſſion; but I entertain an abhorrence of illiberal ſarcaſm, and unmanly reflections. A diploma has not the powers of the Ægis, deſcribed by the poets; nor has any one man the excluſive right of employing the ſhafts of ridicule. Thoſe who in controverſy maintain an independence of reaſoning, and who ſupport the important character of Phyſician, or Surgeon, with feeling and humanity, muſt

muſt ever meet the approbation and eſteem of all good men. Mr. Crowfoot's conduct in refuſing an interview might give riſe to the ſeverity of Dr. Langſlow. Theſe are points which have been ſufficiently handled, and have met with ſufficient, perhaps unmerited, cenſure.

Morgagni ſomewhere ſtates that one cauſe of Apoplexy may be, air eſcaping from the blood, and preventing the free circulation in the ſmall arteries of the brain! Pyrrho (Vol. vii. p. 336) ſuggeſts that Apoplexy may originate in the lungs! Oher Phyſicians, he ſays, imagined the toes might be affected ſo as to produce a kind of Apoplexy! But if one was fond of theorizing, the following equally plauſible hypotheſis might not be totally diſregarded. That Apoplexy depends on a torpor of the heart and arteries, or an idiopathic affection of the valves of the veins; which from ſchirroſity, ſpaſm, and many concurring cauſes, may ſuffer a temporary retrograde motion of the blood! In this manner might be accounted for all ſuddenly fatal diſeaſes, where the patient falls precipitately to the ground. In common caſes of ſyncope every power of action in the heart and arteries ſeems extinguiſhed, and when the patient begins to ſhew ſigns of life, the pulſations of the heart are irregular and fluttering, as if ſtruggling to recover ſome oppreſſive interruption of its energy. From defect of ſtimulus in the medullary ſubſtance, will be occaſioned acute throbbing, and a ſenſation of ſtricture in the head; and the reſpiration, from ill oxygenated blood in the lungs, will be labourious and difficult. But "imagination is a buſy power," and we bend our theories to our practice, as a mechanic would bend twigs for the uniformity of a machine!

They ſay our notions change with our philoſophy. Amongſt the ancients, other ſciences made more rapid ſtrides to improvement than that of medicine. The mathematical philoſophers and phyſicians ſtudied much of mechanics, and they thought themſelves wonderfully ingenious, when they began to explain the living body on mechanical principles. In proſecuting their enquiries on fermentation, glands, and humours, and of the heart pumping blood, their practice was uniform though their philoſophical terms appeared vague and obſcure. We are not, even in this age of refinement, free from ſimilar errors. I ſhall endeavour to illuſtrate theſe ſentiments from a caſe related by Dr. Fothergill, as there is nothing in mechanics* which can agree with the functions of organic life.

"A gentleman was ſeized with an apoplectic fit, one day as

* Haller, ſpeaks of the human body as an hydraulic machine.

as he was croffing the Thames in an open boat; the waterman landed him as quick as poffible, at the place he was going to, where all poffible affiftance was procured expeditioufly, and he foon recovered." The Doctor fays, " I faw him at his own houfe, foon after his recovery, and inquired if he recollected the pofture he was in when he loft himfelf: He replied, he was looking at a fhip, and kept his eye upon her after he had gone by her, till he loft himfelf, and fank down in the boat." On the perufal of this ftatement there is one queftion to afk, Was this *really* Apoplexy or not? A perfon unufed to the water, in paffing by a fhip, and looking ftedfaftly at the rigging, will, in any attitude, fometimes have vertigo and vomiting, even to fuch a degree that he will fink down, and lofe all recollection of his fituation. Dr. Fothergill was not prefent during the feizure, and it is poffible he might not be accurately informed of the fymptoms. However, he concludes, that in fhort-necked people looking backwards any length of time favours apoplexy, as in the above cafe, and explains his ideas to the following purpofe. He compares the carotid arteries and jugular veins to hollow flexible tubes of leather, or any other yielding fubftance, and the fhorter the tubes the more liable they are on being turned round of having their cavities compreffed. " The carotid arteries lying nearer the centre of motion are very little affected by the turn of the head, even in very fhort necked people; they continue to convey full ftreams of blood to the head: But the jugular veins lie nearer the furface, and if the neck is fhort, and full at the fame time, the twift fo far contracts their diameters that it is impoffible for them to return a proportionable quantity." The confequence is giddinefs and perfect Apoplexy. This is a circumftantial detail of a theory which Dr. Fothergill, no doubt, conceived to be juft. It is well known he was a man of erudition, and of liberal views; his opinions have the greateft weight with many refpectable practitioners, and his works have acquired the celebrity they fo juftly deferved; I reverence, with numbers, the excellency of his character, and fubmit the annexed Comments on a production of his, with diffidence, to the candid and impartial.

Every one muft allow that his doctrines of the leathern tube, and compreffion of the aorta, are very mechanical, and therefore inapplicable to the living fyftem. Where is the confent and fympathy of parts, the inherent contractile and mufcular power in any inanimate unorganized material, which can admit of any analogy with what the worthy Doctor has premifed? He advifes fhort-necked people always to turn their whole bodies towards the object they wifh to view, and not look over

 their

their ſhoulders, as this attitude occaſions an obſtruction in the jugular veins! Did the carotid arteries or jugular veins bear any compariſon to the flexible leather tube which he deſcribes, I ſhould be ſurpriſed that caſes of Apoplexy ſhould be ſo unfrequent.

Dr. Fothergill's Eſſay was profeſſedly written to diſcountenance the operation of bleeding in Apoplexies, and many of his reaſons againſt that practice are the reſult of his own experience. I think alſo profuſe general bleeding peculiarly hurtful to the conſtitution, and very probably may induce an incurable hemiplegia; but topical, never. A ſmall quantity abſtracted from the arm cannot be prejudicial, yet may be of eſſential ſervice: But I muſt deny that the diſeaſe can be produced by a large indigeſted meal! If the patient in that ſtate even falls down on the floor, it is not Apoplexy, and emetics may then be judiciouſly adminiſtered. And I believe, when the ſtomach is diſtended with food, it commonly projects forwards, and in pregnant women is puſhed upwards againſt the diaphragm; ſo that the aorta deſcendens cannot ſuffer by its compreſſion. The aorta only emerges into the abdomen from between the crura of the tranſverſe ſeptum, which is behind the ſeat of the ſtomach and above the crura, it is ſufficiently defended by the diaphragm. Mr. Crowfoot, from the authority of Dr. Fothergill and others, doubted not the propriety of giving emetics in Apoplexy,* as he perhaps never cloſely inveſtigated the probability of the theory on which ſuch practice was founded. A diſplacement of the abdominal viſcera, a diſeaſed ſtomach or ſpleen, might cauſe ſome degree of compreſſion; but when every part is in its natural ſituation, free from diſeaſe and enlargement, the compreſſion, if there is any, cannot prevent the circulation in the aorta, which is ſafely lodged in the angle made by the vertebræ and the ribs. Beſides, if ſuch a compreſſion really exiſted, the numerous branches which go off from the aorta deſcendens, while it is yet in the thorax, would be ſufficient to carry off the ſuperabundant blood, as the aorta is not repreſented in Dr. Fothergill's theory, or any defender of his opinions, to have the ſides compreſſed together. When Dr. Monro, in his Lectures, aſſerts that he can, by puſhing his hand againſt the abdomen, compreſs the aorta, and when the ſubclavian artery is totally compreſſed in amputation of the arm, why is not the patient, under theſe circumſtances, attacked with Apoplexy? If compreſſion by the diſtended ſtomach upon

* In Heiſter, we find the actual cautery, and ſcarification of the occiput, uſed as remedies for Apoplexy.

upon a great artery can produce that disease, why is not Apoplexy produced when the compression is equally powerful upon the same, or an equally important, part of the arterial system?

I am, &c.

April 10, 1802. JAMES ATKINSON.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

OWING to the neglect of my Bookseller, I did not receive the last Number of your valuable Work till the 7th instant; this circumstance, united to my professional avocations, precludes me from answering at present, so fully as I could wish, the *eccentric* though elaborate Communication of your Correspondent Pyrrho. I call it eccentric, because I think he is himself sceptically inclined to the doctrines he has there advanced; for, surely, a more wild and fanciful hypothesis than the idea of the Cause of Apoplexy originating in the Lungs, from defective oxygenation* of the system, was never before *seriously* promulgated. Some of my medical neighbours, judging I suppose from the peculiarity of diction, together with the marked predilection evinced by the author for *antique* authorities, attribute it to the pen of Mr. Crowfoot's patron, Dr. G. Be this however as it may, I shall be allowed to ask him, why any Controvertist, upon so laudable and interesting a subject as that of Apoplexy, should wish to enter the lists under a mask? We assuredly ought to hope, that every Disputant who has signalized himself on this important occasion, has been actuated by a sincere desire of promoting the cause of truth, science, and humanity; and such being his motives, he need not feel himself dishonoured by the publicity of his name, notwithstanding his well-meant exertions might ultimately fail of success; and we naturally infer, that when a Disputant, like this author, advances opinions which he is unwilling to sanction with his *real* signature, that he is imitating, if not surpassing, his prototype in Pyrrhonism, by not only disbelieving the doctrines of his cotemporaries, but also entertaining doubts † of the validity

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* Do not the countenances of those persons supposed to be predisposed to Apoplexy, indicate excessive rather than defective oxygenation?

† At page 336, Pyrrho admits his Communication to be a Table of Doubts!

lidity of thoſe opinions he has himſelf attempted to promulgate. Pyrrho ſaid, " Examine all things, determine nothing." But hear what St. Paul ſays: " Prove all things, and hold faſt to that which is right." How noble, juſt, and exemplary are the ſentiments of the Chriſtian Apoſtle, when compared with thoſe of the ſceptical Greek philoſopher.

So much has been urged in the courſe of this diſpute about perſonal rancour and contemptuous language, that I feel myſelf obliged, once more, to repeat my aſſertion in the moſt poſitive terms, that when I forbid the uſe of the emetic in the Caſe in queſtion, I was actuated *solely* by an anxious wiſh to preſerve a truly valuable life. Nay, could it be otherwiſe? At the moment the order iſſued from my lips, Mr. C's perſon was unknown to me, as well as the fact of his having *adviſed* the Emetic;* and my motives for perſevering in the Controverſy are aſſuredly thoſe of benevolence and humanity towards mankind, as I conſider the extrication of my own character from the unmerited attack it has experienced only in a ſecondary point of view; and if I ultimately ſucceed in aboliſhing what I truſt is by this time generally conſidered as a dangerous and injudicious practice, namely, the adminiſtration of Vomits in Apoplexy, I ſhall be much gratified, and feel myſelf amply compenſated for my trouble and exertions, in the reflection of having deſerved well of my country, as well as conſolation for the unmerited obloquy and odium my uncandid adverſaries have laboured ſo induſtriouſly to load me with. I may probably be allowed in this place to introduce a Caſe ſtill farther illuſtrative of my opinion, ſelected from others intended for publication in my next work, the particulars of which I have been favoured with by a truly intelligent, learned, and reſpectable Divine, the friend and acquaintance of the noble family where it occurred.

The father of a much and juſtly reſpected Nobleman in this neighbourhood, was attacked with real Apoplexy in his own park; the family ſurgeon, reſiding only a mile diſtant, was called to his relief; he, with great propriety, bled him plentifully upon the ſpot where it occurred, the effect of which was a ſpeedy alleviation of the moſt alarming ſymptoms; he was then cautiouſly and gently removed to the houſe, and farther medical aid required; the reſult of which was the immediate adminiſtration of a vomit, moſt probably to remove the nauſea and ſickneſs which always ſupervene in caſes where the brain ſuſtains compreſſion to a *certain* degree; but, alas! notwithſtanding

* Vide pages 5—15 of the Hiſtorical Sketch of the Controverſy, with Notes and Comments, critical and explanatory, ſold by Cadell and Davies London, price 1s. 6d.

ſtanding, previouſly to the exhibition of the emetic, hopes of recovery were entertained, the vomit no ſooner began to operate than a return and increaſe of the unfavourable appearances took place, and the patient ſpeedily expired. The Apothecary, with that truly laudable liberality and candour that will ever reflect ſplendor on his name, has repeatedly aſſured the reſpectable Divine above alluded to, that he had always regretted the having had recourſe to the exhibition of the emetic on that occaſion; for, however well intended, he now entertained no doubts of its having expedited the fatal event, if not abſolutely occaſioned it. Now, was every medical gentleman actuated by ſimilar motives upon ſuch occaſions, and to acknowledge their erroneous practice with the ſame ingenuous candour as this honeſt and worthy Apothecary has done, the progreſs of improvement in the Medical Art would be much more rapid even than what the preſent enlightened period can boaſt of, and our arrival at the acme of perfection in it be greatly and deſirably expedited.

From the preſſure of profeſſional engagements, I muſt, for the preſent, beg leave principally to refer your numerous readers to my Hiſtorical Sketch of this important Controverſy, ſold by Cadell and Davis, London; as, in the Notes and Comments of that Work, I am inclined to think they will find many parts of the ſingular doctrines of Pyrrho already, in ſome meaſure, combated; and in a work I ſhall ſhortly have the honour of iſſuing from the Preſs, I ſhall ſtill farther inveſtigate their merits and foundation; and though, in ſuch Inquiry, I may not, like Pyrrho, be able to boaſt of a very intimate acquaintance with the doctrines and opinions of a Valiſnerius, a Helmont, a Riverius, a Caldani, or a Lupi, &c. upon Apoplexy, I ſhall however, I truſt, readily make it appear, that in my *mode of treating* this dangerous malady, I have the ſanction and ſupport of a Hoffman, a Cullen, a Fordyce, and a Portal; and let me aſk Pyrrho, whether the latter authorities, aided and enlightened as they have been by the anatomical, phyſiological, and pathological diſcoveries of late years, are not of more weight and conſequence than the opinions of moſt of thoſe writers, (unaided by ſuch diſcoveries) which with ſuch an affectation of antique erudition he has taken ſuch unuſual pains to ſelect? though I have my doubts whether Pyrrho himſelf can convince us, that either of his admired authors ever attempted to transfer the ſource of Apoplexy from the brain to the lungs; and I cannot repreſs my applauſe of the Editors for their expreſſing their wiſhes for an opportunity of preſenting *ſuch a Caſe* to their Readers.

Notwith-

Notwithſtanding the hurry in which I am compelled to write, I cannot take leave of Pyrrho without referring him to the Notes introduced in the Hiſtorical Sketch for proofs of that forbearance, candour, and liberality he ſo vauntingly boaſts of in the conduct of his friend, Mr. Crowfoot. The truth of the remarks adduced in my Publication, as well as thoſe contained in my Letter to Dr. Girdleſtone and Mr. C. publiſhed in the Ipſwich Journal, of the 2d of January laſt, in anſwer to their Advertiſement of the 26th of December, 1801, and ſince copied into the Hiſtorical Sketch, p. 44 to 48 of that Work, and their ſtill remaining unrefuted and uncontradicted, are ſurely unqueſtionable proofs of their foundation in truth. If Mr. Crowfoot was originally juſtified in refuſing an interview with a Phyſician he never ſpoke to, and probably had never ſeen, why did he ſubſequently court *such* interviews *unnecessarily*, till his farther attendance upon the patient was abſolutely forbidden by her huſband, without my knowledge or approbation?

At page 330, I am accuſed of ſpeaking vauntingly and contemptuouſly of my Opponents; I do not plead guilty to the charge, as I am unconſcious of having done ſo, and aſſuredly did not intend it; though, indeed, had ſuch been the fact, ſome allowance ought to have been made for the feelings of a Phyſician, attacked and traduced as I was, without the *slightest cause*, by an ex parte Statement circulated clandeſtinely among the friends of Mr. C. and which has been *proved*, in my Anſwer, to have been compoſed principally of falſhoods and miſrepreſentations: Under ſuch treatment, would it have been wonderful if I had been betrayed into an undue degree of warmth and acrimony? though, upon a calm retroſpective view of my writings, I cannot diſcover any good ground for ſuch cenſure. However, I am ready to ſubmit my conduct upon this occaſion to that Tribunal which rarely errs;* and if the Public pronounce me guilty, I ſhall readily and cheerfully make every reparation for the injury ſuſtained, which can reaſonably and honourably be required of me. I have, therefore, collected all the facts in my Hiſtorical Sketch, and thus the merits of the reſpective parties engaged in the Controverſy are now placed ſub judice. I ſhall wait the deciſion with patience, and ſubmit to the Decree, even ſhould it unexpectedly be pronounced againſt me, with reſignation and without complaint.

For

* Who does Ariſtarchus, jun. allude to in his well-timed cenſure upon illiberal and acrimonious language?

For the refutation of thofe arguments adduced by P. againft the idea of emetics increafing the determination to the head, and thereby tending to increafe exudation from the exhalants, or effufion from vafcular rupture, I fhall beg leave for the prefent to refer him to the ingenious Obfervations of the intelligent Dr. Mofsman, in No. 37 of your Journal; nay, their tendency to impede the return of blood from the head, *admitted by P. himself*, is an effect fufficient to deter us from their *ufe* in Apoplexy, even did they not impel the blood with violence into the head during the action of vomiting, though I am of opinion P. has convinced but few of his readers that they do *not* poffefs the *latter power* and tendency.

At page 333, P. feems to ridicule the idea of my attaching the leaft importance to the diftinction between fanguineous and ferous apoplexy, becaufe the abftraction of blood is recommended in *both* cafes; but it furely does not follow, that the evacuation may be carried with equal propriety to the fame extent in *both* affections. That the fame kind of remedy is indicated I will allow, because the caufe of the difeafe is the fame in both inftances, *preffure on the brain*; but furely the abftraction of fix or twenty ounces of blood from the fyftem, will produce ultimate effects *widely* different; the latter quantity may be expedient and proper in fanguineous Apoplexy produced by effufion from vafcular rupture, in a full fanguine plethoric conftitution, but in a cafe of ferous Apoplexy induced in a different habit, a fimilar abftraction of blood might induce a fatal torpor—The propriety and importance therefore of diftinguifhing ferous from fanguineous Apoplexy, will, I truft, no longer be difputed or ridiculed by Pyrrho; he cannot from the writings of Morgagni or Portal make it appear, that though they very judicioufly recommend bleeding in *both cafes*, that they confider it as advifeable in the *same* proportion. At page 146, vol. iii. of Cullen's Practice, Pyrrho will difcover that enlightened author ftating as follows: "From the view I have now given of the caufes of Apoplexy, it will readily appear that *there is a foundation* for the common diftinction of this difeafe into the two kinds of fanguine and ferous." This being the opinion of the immortal Cullen, and my having already proved the neceffity of apportioning the abftraction of blood to the nature of the compreffing caufe, it will be clearly evinced that the ridicule attempted to be attached to the importance of this diftinction is *proved* to be ill timed and unfounded.

In anfwer to the obfervation of P. at page 334, objecting to the probabillty of over diftenfion *ever* proving a fource of extravafation, that opinion, *if juft*, operates more powerfully againft the fupporters of the doctrine of congeftion, turgefcence,

cence, and expanſion of the veſſels of the brain being the ſource of compreſſion on that organ, in Apoplexy, than it does againſt my opinion that the moſt frequent cauſe of Apoplexy, when the diſeaſe does not terminate in death, or paralyſis, is exudation from the orifices of the exhaling arteries.

At page 335, Pyrrho expreſſes his doubts * of an abſorbing ſyſtem exiſting in the brain, becauſe lymphatics have never been there demonſtrated either by diſſection or injection; if P. will trouble himſelf to refer to a note at page 28 of my Hiſtorical Sketch, he will there find it ſtated, that notwithſtanding the lymphatics of that viſcus have hitherto eluded the knife and the ſyringe of the Anatomiſt, it is poſſible this may have ariſen from their extreme minuteneſs in that organ, as from analogy we cannot eaſily relinquiſh the idea of their exiſtence; but admitting, for the ſake of argument, that they do not exiſt, is it not poſſible the inhaling viſcus may perform this office in that particular organ? The beſt Phyſiologiſts have entertained this opinion; and at page 144 of vol. iii. Cullen has admitted the probability of the fact; and for my mode of accounting for the ſudden and in ſome caſes ſpeedy reſtoration of a *portion* of the ſenſorial functions in Apoplexy, particularly that of *ſpeech*, I muſt refer you to my reply to Mr. Atkinſon, which appeared in the laſt Number (37) of your Journal.

I ſhall next advert to P's comparative view of the effects of bleeding in the different caſes of Apoplexy he has met with, introduced page 336, where he again expreſſes his *doubts* whether thoſe which have loſt the greateſt quantity of blood, have not proved the moſt fatal. I have no objection to concede to P. the correctneſs of this calculation, as it is reaſonable to infer that a judicious practitioner would abſtract the greateſt proportion of blood, in caſes of ſanguineous Apoplexy, and I have formerly aſſerted that I believe few *such* caſes terminate favourably.

I cannot, however, drop my pen, without complimenting the author upon his ſuddenly aſſumed candor and liberality, where at 337, he expreſſes his gratification that his communication may tend to repreſs in tbe *mover* of this Controverſy, boldneſs of aſſertion, and acrimony of invective: That his friend Mr. C. muſt be the perſon alluded to, has been repeatedly *proved* and aſſerted without refutation or contradiction; Mr. C. had aſſuredly recourſe *firſt* to the pen, the news-paper, and the preſs, and is therefore *entitled* to thoſe applauſes and commendations due

* Let it be recollected that the whole of his communication is ſceptic-like, a ſeries or collection of Doubts!

due to the original promoter of the present Inquiry into the causes and treatment of Apoplexy. I am, however, at a loss to discover in what part of my publication on this subject, I have asserted that Apoplexy is to be removed or cured with Mesmerian, or Perkinean facility; P. will probably, in some future communication, have the goodness to point out the page. I have uniformly lamented the fatality and danger generally attendant upon this much and justly dreaded malady, though I can by no means accord with P. in his *doubts* of the frequent, though perhaps not uniform, good effects of general and local bleedings, blisters, laxatives, and cathartic injections in *Apoplexy*.

I shall now trouble you with a few lines, in reply to Mr. Crowfoot's last paper, and then take my leave of the subject for the present month. Mr. C. commences with a complaint against that ingenious and scientific physician Dr. Mossman, who will doubtless, in some future Number, with his accustomed ability and candor, repel the unmerited attack, if he conceives it worthy his notice. He then proceeds to state his anxiety to relinquish the Controversy; his best friends think it would have been to his advantage had he never began it. His ostensible motive however for so doing is still more extraordinary if not mysterious, for he states, " that Controversy is *impracticable*, and Refutation *useless*," page 361, No. 38. Now, on the contrary, that Controversy has been, and is still *practicable*, has been completely evinced during the last five months by our having unremittingly persevered in it; and that the refutation of erroneous opinions in the mode of treating so dangerous a malady as that of Apoplexy will be useful, I trust no man, Mr. C. excepted, will attempt to deny. Had Mr. C. reversed his observation and said, that farther controversy upon this occasion is now *useless*, as proof of the utility of Vomits in Apoplexy is *impracticable*, he would have been nearer the truth, and assuredly have been more readily understood. Mr. C. next complains of my intemperate and contemptuous language towards himself, Mess. Wilkinson and Atkinson, whom, it seems, he wishes to consider as converts to his opinions. Had my reply to Mr. Wilkinson impressed him with a similar idea, he would in all probability have made an appropriate rejoinder. That Mr. A. did not think my language intemperate or contemptuous, is evinced by his Answer in the last Number, where, at page 365, he observes, Dr. L's defence against Mr. C. appeared *to him*, with some exceptions, to be pregnant with utility and just discrimination; and to prove that Mr. C. has deceived himself in supposing Mr. A. a convert to his opinions, allow me to refer him to his observations on what he calls the *extraordinary*

nary doctrines of Mr. Crowfoot, at page 365 of the ſame Number, and where he aſſerts, that he conceives an emetic in Apoplexy a moſt objectionable and injudicious remedy; "and if Mr. C. contends that there is no *preſſure upon the brain*, he cannot imagine the caſe either nervous, ſanguineous, or ſerous Apoplexy, for that, certainly no caſe of *real* Apoplexy *ever occurred* but was cauſed by an affection of the brain." I truſt theſe rational, and intelligent obſervations of Mr. A. do not indicate that he conceived my language either intemperate or contemptuous, or that he is a Convert to the opinions of Mr. C.

Mr. C. next proceeds to point out, what he is pleaſed to term contradictions* in my publications; and charges me with ſtating, that in my *explanation* I aſſerted that the two words, extravaſation and blood, were not made uſe of by me, in the preſence of the family, the day I was called to the lady in queſtion, becauſe the parties preſent did not hear me; and it is from this miſtaken idea that he concludes I had at one time changed my ground, and abandoned the opinion of extravaſation being the moſt general cauſe of real Apoplexy, as he declares I afterwards ſtate, that "the expreſſion is directly repugnant to my opinion." Now, had I really written and made the obſervation Mr. C. charges me with, his inference would be juſt, and his triumph complete; but unfortunately for the comprehenſion or veracity of Mr. C. I ſhall preſently prove that his premiſes were falſe, and his inference conſequently erroneous. If Mr. C. will trouble himſelf to refer to my explanatory Letter, a copy of which is inſerted at page 37 of the Hiſtorical Sketch, he will find the words uſed by me were, *not extravasation* and blood, but *conſiderable and blood*; I never denied the *extravasation*, only that of its being *conſiderable.* I always admitted, and ever conſidered, the cauſe of the affection to have been "preſſure upon the brain," induced by *exuded*, conſequently *extravaſated* ſerum, as the term extravaſation applies with equal propriety whether the compreſſing fluid be blood or ſerum; and I conſider myſelf juſtified in denying Mr. C's firſt ſtatement to *be true*, where he aſſerts that I ſaid there was *conſiderable* extravaſation of *blood* upon the brain, becauſe the aſſertion would have been repugnant to my opinion; for though I believed in the *extravasation*, I never conſidered it as *conſiderable*, or that it was *blood*; though, had I ſeen the patient when the attack firſt took place, my opinion might have been different. Before ſhe was bled, the

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* Would not Mr. C. be more uſefully engaged in endeavouring to refute my arguments than in ſearching for typographical errors, or ſuch as may be the reſult of profeſſional hurry?

the ſymptoms were ſo alarming and violent, that a practitioner might have been juſtified in ſuppoſing the extravaſation conſiderable, and to have been induced by vaſcular rupture; but at the period of my arrival, near two hours after ſhe was bled, the alarming ſymptoms were ſo much alleviated, and the appearances of compreſſion on the brain ſo much diminiſhed, that I was induced to conclude, from the ſpeedy abſorption of a *portion* of the *extravasated* fluid, that its nature muſt have been ſerous, and the quantity by no means large. By a reference to the explanatory Letter alluded to, my opinion and meaning may be ſtill more clearly underſtood; and if Mr. C. really conſidered my Statement as denying the exiſtence of *extravasation* in the caſe in queſtion, we muſt ever lament his defective comprehenſion and diſcrimination. I truſt, however, a ſimilar conſtruction to that of Mr. C's, has by no other Readers been applied to the language of my Explanatory Letter. What I have already written will ſufficiently explain and elucidate the ſucceeding Remarks of Mr. C. till we arrive at the ſentence, page 362, where Mr. C. ſays, if the effuſion had not at firſt been aſſerted to be *considerable*, how are we to reconcile the principal part being abſorbed, and *now* but little remaining? Is it ſo difficult to comprehend how the principal part even of an *inconsiderable* quantity of extravaſated fluid may be abſorbed, and yet admit of a *little* to remain? as very *small* quantities of a fluid will allow of a diviſion or ſeparation of parts.

Mr. C. then ſays, it is difficult to imagine how that could be denied, which had not been affirmed. I again call upon Mr. C. to point out where, and when, I *denied the extravasation* of ſerum in the caſe in queſtion. Mr. C. ſoon after ſtates, that there was never any reaſon to doubt the correctneſs of the opinion formed by Mr. Primroſe in the caſe of this lady. Now it is probably in the recollection of moſt of your Readers, that Mr. Primroſe was the firſt who conſidered and determined the caſe of our patient to be *real* Apoplexy; Mr. C. confirmed his opinion when he arrived, and I agreed in opinion with both upon *this point*. Now, upon referring to Mr. C's ſtatement of the caſe, copied into my Hiſtorical Sketch, p. 2 to 13, the Reader will find, in a Note inſerted page 3 of the Sketch, that he, Mr. C. declares he *admits* the caſe to be Apoplexy, *to avoid cavilling*; but *now* aſſerts and ſupports the accuracy and correctneſs of the ſame gentleman he had ſo aſperſed, by declaring that he originally *admitted* the caſe to be Apoplexy, *to avoid cavilling*.* In the ſucceeding ſentence, Mr. C. is pleaſed to

* Vide my Notes on this conduct of Mr. C. p. 3, 9, and alſo at p. 24 of the Hiſtorical Sketch.

to term my addrefs to Mr. Atkinfon a Phyfical Romance; probably he found it a much more eafy tafk *to attach that title* to it, than to *refute* the arguments* it contained. Mr. Atkinfon feems to entertain a different opinion, and will probably transfer the correction of my numerous errors, and the refutation of my unfounded affertions, to the pen of Mr. C. I truft he will not be offended with me in propofing to apply the concluding paragraph of his letter to his own conduct and behaviour. He ftates, that it is the production of a much *admired* author; I do not recollect it in the works of Addifon, Junius, or any of the celebrated writers I have myfelf perufed; but was I to judge from the expreffion, *impartial reasonings*, I fhould be inclined to attach the credit of the paragraph to Tom Paine; and if my conjecture is correct, and Mr. C. is a real *admirer* of him or his *writings*, I envy him not his literary tafte.

Halesworth, April 10, 1802. R. LANGSLOW, M. D.

To the Editors of the Medical and Phyfical Journal.

Gentlemen,

THE following Remarks on the nature and cure of Apoplexy are offered to the public, not with a view to take any part in the prefent Controverfy on that fubject, but merely to afcertain how far certain modes of practice can be fupported by reafon and experience. If the hints thrown out could be of any fervice to the improvement of the healing art, I fhould feel myfelf highly gratified.

That Apoplexy is a preternatural determination of blood to the head is believed by all parties; and the diffection of bodies who have died of the difeafe confirms the opinion. But what is the caufe of this unequal diftribution of the blood? Are the veffels of the brain more apt to receive the blood when predifpofed to Apoplexy, than in health? Or, is there a partial obftruction of the circulation in any other part of the body? Of the firft of thefe we have no proof, of the latter we have many.

"After a *full meal*," fays Dr. Moffman, "Apoplexy very frequently occurs.† What effect does a full meal produce upon

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* It is rather fingular that both Mr. C. and his friend Dr. G. have applied themfelves more diligently to the difcovery of typographical errors, or contradictions, as they term them, than to the refutation of argument.

† Medical and Phyfical Journal, Vol. vii. p. 208.

upon the ſanguineous ſyſtem? The Doctor anſwers, that " it increaſes the arterial impetus." If it increaſes the arterial impetus, does it do it in the whole ſyſtem or only in a part of it?* If it does it in the whole ſyſtem I cannot ſee how Apoplexy can follow as a conſequence. The circulation may be ſwifter, but ſtill it is equal through every part of the body. If it do it only in a part of the ſyſtem, Apoplexy may be induced; that is, if the circulation towards the head be increaſed, while that towards the extremities is diminiſhed, Apoplexy will moſt probably follow.

In what ſtate are the lower extremities of a perſon prediſpoſed to Apoplexy after a full meal? Are they not pale, cold, and feeble? Is not this occaſioned by ſome obſtruction of the deſcending aorta or other veſſels which carry blood to theſe parts? And may not this be occaſioned by an over-diſtenſion of the ſtomach and inteſtines? Thus a full ſtomach, by its ſtimulus, increaſes the arterial impetus, while at the ſame time, by its bulk, it obſtructs the flow of blood to the lower extremities. It may too by its preſſure upon the lungs prevent the return of the blood from the head. The conſequence of all theſe muſt be a preternatural determination to, and congeſtion in, the veſſels of the brain, hence Apoplexy.

Is it certain, or probable only, that in moſt caſes of Apoplexy there is effuſion from, or rupture of, the veſſels of the brain before death? How ſoon after death has any perſon opened the head of a patient who has died of Apoplexy? Is the force of the circulation ſo great as to rupture the veſſels of the brain when in a ſound ſtate? Or does a rupture only happen after the veſſels are become diſeaſed, or in a gangrenous ſtate from the continuance of over diſtenſion? Might not the blood and ſerum which have been found in many caſes have been thrown out after death, by the rupture of veſſels which had become gangrenous? Or may not the mouths of the exhalent veſſels be left in ſuch a manner, after death, as to pour out a quantity of ſerum? Is it not a common occurrence, in people who have died of other diſeaſes, to find quantities of blood or ſerum effuſed into the cellular membrane in different parts of the body ſoon after death? May not the effuſion in the brain have happened in the ſame way? So what we look upon as the cauſe of death may be the conſequence of it? I could wiſh much to ſee theſe points aſcertained; for if the force of the circulation be not ſufficient to rupture the veſſels of the brain when in a ſound ſtate,

* In this paper I have adopted the Socratical mode of reaſoning as being more laconic and pointed.

ſtate, and if no effuſion take place except in conſequence of diſorganization of the veſſels or gangrene, a material ſtep would be gained towards ſucceſsful practice. Why ſhould we doubt of the truth of theſe propoſitions till we ſee reaſons to the contrary?

If over diſtenſion of the ſtomach and inteſtines be the cauſe of obſtruction in the deſcending aorta and of compreſſion upon the lungs, and if obſtruction in the deſcending aorta and compreſſion on the lungs be the cauſe of a preternatural determination to the head, what is the indication of cure? To empty the ſtomach is the moſt natural. But how is this to be done? Emetics we are told are inadmiſſable, and evacuations by the anus are too ſlow in their operation, hence this cauſe of Apoplexy cannot in many inſtances be removed.

Why may emetics not be adminiſtered? Were they ever exhibited in a caſe of Apoplexy and did harm? Or is this merely an imaginary danger which no man ever ſaw? Is it merely the *ipſe dixit* of great men, handed from one to another, and now univerſally believed upon their authority without any other evidence? "Vomitting" ſays Dr. Cullen, "has been commended by ſome practitioners and writers; but *apprehending* that this might impel the blood with too much violence into the veſſels of the head, *I have never employed it.*" But is it certain that the operation of an emetic increaſes the flow of blood to the *brain*? If the anſwer be in the affirmative, I aſk, how is it aſcertained? The face indicates a preternatural quantity of blood in the head, but whether is this owing to the exertions of the perſon himſelf, ſtretching and twiſting the muſcles of the face in conſequence of the pain in the ſtomach; or is it a peculiar action of the emetic upon the ſtomach, producing a preternatural flow of blood to the brain? Was ever Apoplexy in perſons of the apoplectic habit brought on by taking an emetic? Is the face of a man vomiting after exceſſive intoxication, and when he has no marks of ſenſibility more than a perſon in Apoplexy, ſuffuſed in the ſame manner as one in ordinary circumſtances? So far as my obſervation goes, it is not the caſe; on the contrary I have ſeen them as pale as death. How, in caſes of this kind, could we determine whether or not there is a preternatural flow of blood to the *brain*? Did ever any of your correſpondents who condemn the uſe of emetics, ſee a perſon vomiting when in a fit of Apoplexy, and was his face additionally ſuffuſed with blood as in one taking a vomit for ſome other cauſe? Or do they condemn them merely from imaginary grounds, or by authority?

Is it not common to find relief from the exhibition of an emetic in caſes of head-ach? Does not the violent pulſation we feel in the head abate in many inſtances after an emetic, and

and ſometimes even during the operation of it? How could this be the caſe if it increaſed the flow of blood to the head? Have we not all ſeen caſes of vomiting even where an emetic had been taken where the face was pale?

When any part of the body is violently exerted, is there not a preternatural flow of blood to that part? What reaſon have we to ſuppoſe an increaſed action of the brain during the operation of an emetic? And if there be no increaſed action of the brain, how do we prove, or imagine, that there is a preternatural flow of blood to it? Is it not more natural to ſuppoſe that the brain is the moſt quieſcent part of the whole body during vomiting, and that no preternatural ſuffuſion of blood will appear even in the face unleſs the perſon be in a ſtate of acute ſenſibility? Is it not more probable to ſuppoſe, ſince the thorax and abdomen with all their contents are thrown into a violent ſtate of action during the operation of an emetic, that the return of the blood from the head would be accelerated, and inſtead of being ſent back again, would be diſtributed to the parts of the body in action? Why ſhould we diſbelieve this till we ſee reaſons to the contrary?

If an over diſtenſion of the ſtomach and inteſtines be frequently a cauſe of Apoplexy, and if an emetic do not increaſe the flow of blood to the head, is it not the moſt rational application? But granting that it did increaſe the flow of blood to the head, if it did not immediately rupture the veſſels, would it not ultimately relieve the patient? If it rupture the veſſels, muſt they not have been previouſly in a diſeaſed ſtate from over diſtenſion, and death would have been the conſequence at any rate?

Beſides vomiting, the moſt effectual means of curing Apoplexy are bleeding and bliſtering. Bleeding, if the patient be of a full habit, which is generally the caſe, ought by no means to be omitted, and the ſooner it is done the better. Bleeding will not remove the cauſe of the diſeaſe, ſince it does not conſiſt in the quantity of the blood, but in the unequal diſtribution of it. It may, however, remove the agent which is likely to do the miſchief, or, as an ingenious friend of mine obſerves, it is like taking the bullet out of the gun before it is fired."

Bliſtering too is likely to be of ſervice; but how can it be performed ſo quickly as the urgency of the caſe requires? Could not the lower extremities, or any other part neceſſary be bliſtered by cloths dipped in boiling water? This would produce an effect in five minutes, which could not be done in twenty times as long by any other means which have been commonly uſed. The objections to its novelty, or its being cruel and painful, ought not to weigh a moment, ſince the patient is not ſenſible of the pain when it is applied, and the conſequences

are not to be put in competition with the patient's life. Besides the quantity of serum extracted in this way, the stimulus of the boiling water would greatly increase the determination of the blood to the lower extremities; and if the obstructing cause be previously removed by an emetic, the patient would stand a fair chance to recover.

We have said that there is generally an over distension of the intestines as well as of the stomach, hence the propriety of using acrid injections to produce a copious evacuation by the anus as soon as possible. But this is not all the advantage attending injections of this kind; besides producing an evacuation by stool, they stimulate the whole course of the intestinal canal, and thus determine the blood to these parts. These observations will appear with more force, when we reflect that the suppression of an hæmorrhoidal flux has sometimes proved the cause of Apoplexy.

These remarks are not directed to the young practitioner as rules of practice, but rather to the *experienced*, to be *confirmed* or *refuted*. It is hoped that no arguments will be advanced that rest merely on authority. *I believe in no authority unsupported by reason and experience.* I am, &c.

Scotland, March, 12, 1802 PHILO-MEDICUS.

P. S. I purpose, in my next, to give you a Review of the Theories and Doctrines of Cullen on the Nature and Cure of Apoplexy.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

THE dispute which has lately been carried on through the medium of your Journal on the cause of Apoplexy, although it appears to have primarily arisen from some personal pique, yet as the subject of it is a disease concerning which the medical world has not come to a final conclusion, it may in the end be productive of advantage.

I must confess it is my opinion that the general cause is compression of the brain, either from over distention of the vessels of the head or actual extravasation; except when some of those agents have been applied, " which directly destroy the " mobility of the nervous power, as the fumes arising from " fermenting liquors, or burning charcoal, of mercury or lead, " and some other metallic substances; opium, alcohol, and " some other narcotic poisons."

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I cannot bring myſelf to think a meal of common food can act in a manner in the leaſt analagous to the agents above enumerated, as Mr. Crowfoot ſeems to think. We know that every thing which impedes the free paſſage of the blood through the lungs, likewiſe prevents the free return of it into the right ventricle of the heart, and a conſequent accumulation takes place in the veſſels of the head.

Now, a meal,* by diſtending the ſtomach, muſt neceſſarily prevent the diaphragm from deſcending, by which the tranſmiſſion of the blood through the lungs is impeded; that fluid collects on the right ſide of the heart, and the veſſels of the brain ſwelled out much beyond their natural circumference, may compreſs the medullary portion of that viſcus, or actually give way from over diſtenſion, and in either way produce the ſymtoms of Apoplexy.

The truth of the above Statement will be more obvious, when we conſider that at the time which this diſeaſe moſt generally occurs, a venous plethora exiſts in the ſyſtem, conſequently a ſlower return of blood from the head, which may be more or leſs in different perſons, the variety conſiſting in many local cauſes; and that when this pre-diſpoſition exiſts we are not to be ſurpriſed that a meal ſhould produce ſuch effects.

Concerning the propriety or impropriety of emetics in caſes of Apoplexy, I believe the fear of uſing them has rather ariſen from conjecture à priori, than from actual experience of their bad effects. Dr. Cullen in his Practice of Phyſic, makes no mention of any harm from their uſe in theſe caſes, as doubtleſs ſuch an accurate obſerver would have done if he had only heard of any, but acknowledges that his reaſon for not uſing them was the apprehenſion that they might impel the blood with too much force into the veſſels of the head. In fine, the only queſtion to be aſked is, whether the benefit of emptying the ſtomach, and conſequently of providing a more free paſſage of the blood from the head, overbalances the evil of increaſing the celerity of the circulation (which might certainly be obviated by a moderate bleeding previous to the exhibition of the emetic) in favour of which experience I think has decided.

When extravaſation has once taken place to a *conſiderable extent*, I much fear that remedies will be of little ſervice; but as apoplectic ſymptoms may be produced by ſimple diſtenſion of the veſſels of the brain, every mode which experience countenances ſhould be immediately had recourſe to, to remove the diſtenſion, or, if extravaſation has actually begun, to prevent any further progreſs of it. I am, &c.

H. H.

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* Recollect, that it is immediately after a meal that Apoplexy very generally attacks the patient.

Inquiry into the Influence of Chemiſtry on the Operation of Animal Bodies.

[Continued from Numb. XXXVII. pp. 261—271.]

THE objections we have advanced againſt the doctrines of the Chemical Sects are founded upon principles which this Sect is compelled to acknowledge; for its partizans admit that the origin of vitality cannot proceed from the change of combination in organic matter; but they maintain that when ſuch an idea is received, it is alone to be conſidered as exiſting in the moſt exalted ſphere of action in *transcendentalissimis*, that is, above the reach of our ſenſes, and thus far beyond human comprehenſion; yet we ought to content ourſelves with conſidering the cauſe of organic life, or of its appearances, applicable to beings already formed.

But if this doctrine were admitted, that the principles of whoſe nature we are ignorant muſt be conſidered as *non-exiſtent*, all the power of Nature muſt be annihilated. We know as little of the principle or cauſe of attraction and repulſion as of vitality. The firſt cauſes of powers in Nature are concealed from us; and we know theſe as we know of vitality alone, by operations and appearances.

Thus this mode of reaſoning fully demonſtrates that the firſt principle of life is far above human comprehenſion, and that it may poſſibly remain an impoſſibility for us ever to penetrate into the *arcana* of Nature's operations, yet it in no wiſe demonſtrates that a vital principle does not exiſt. On the contrary, that inconceivable uniformity of all the parts of organized nature with herſelf, and with each other, by which her inceſſant operations ſuggeſt the idea of ſome objective plan, neceſſarily leads us back to the acknowledgement of a ſeparate principle, or a ſeparate power, which is not operative in any particular matter ſimply, but throughout all nature, concerning the exiſtence of which, although it be far beyond our comprehenſion, we draw the inference from thoſe applicable appearances which are obſervable in living beings.

But it has been urged, vital power cannot be a diſtinct principle; for as the immortal *Kant* has juſtly remarked, the genuine idea of power is, *a priori*, a *compound* idea, which divides itſelf into the primitive ideas of *substance*, or *substantiality*, or *causation*; ſo that, whenever we contemplate two natural appearances in ſo cloſe a union, that the one contains within itſelf the principle of the other, and they thus ſtand in the alternate relation of cauſe and effect, the connection of theſe two appearances with each other conſtitutes the idea of power,

power. The idea of power is therefore a *subjective* idea, and by no means *objective*, as if *matter* and the *power* of matter were two diftinct ideas; for matter and power of matter are one and the fame. The metaphyfical idea of *matter* and *power* are not to be feparated; for *matter* is no other than *power* confidered in an *objective* point of view, and *power* no other than *matter* confidered in a *subjective* point of view. Thus organized bodies and organized powers are one and the fame, but contemplated in different points of view; and therefore a living power in the animal and vegetable kingdom is not to be confidered as a diftinct principle, but is to be inferred from the original and general power of matter.

However formidable this objection may appear, which is placed by the celebrated Dr. *Dieman* in all its force, and which is built upon a fundamental axiom demonftrated by the philofophic *Kant*; yet it is our opinion that the *Kantifh* idea of power is not in the leaft inconfiftent with our conceptions of a diftinct principle of vitality, but that they perfectly agree with each other; for that organic bodies and organic powers are one and the fame, confidered in different lights; and that the *power* of operating, and *actual exertion*, ftand in reciprocal relation to each other, as caufe and effect, is with us indifputable: For we confider the organs as the medium or inftrument, and animal operations as the ultimate caufe of life. But this does not militate againft our conceptions of a feparate vital principle, as the firft and operative caufe of vitality; for we muft ftill inquire by what influence (to conform as much as poffible to the terms ufed by this diftinguifhed writer) is every thing in the objects of organized nature, rendered inftrumental in fuch a manner as to act upon each other in the moft intimate and regular manner, by virtue of which, the fame materials which compofe unorganized bodies are endowed with very different properties and powers when received into bodies that are organized; and that, which in the one ftate is merely a rude inactive mafs, is in living beings changed into the component parts of the firft organs, or into the conftituent parts of an irritable fibre or nerve poffeffing fenfation; whence this all-forming power, which produces an organ of fenfe from dead infenfible matter? "How comes it that in inanimate nature there prevails a certain uniformity of acting, and the changes which take place in objects are gradual and proceed from external caufes; while in animated nature all is activity, and harmonizes in certain ends; that there is an inceffant production and decay in beings, which from the moment of their exiftence to that of their diffolution, are carried on in one continued ftream of changes and alter-

alterations?" Can any one explain theſe ſingular and aſtoniſhing changes in their conſtitution, upon the principles of *attraction* and *repulsion*, the only powers known to be exiſtent in brute matter? If the appearances in organized nature are to be conſidered as ſo many ſeparate indications of theſe univerſal inherent powers, why is it that neither we, in any of our chemical experiments, nor Nature herſelf in her various operations, can, as we have already remarked, produce the ſmalleſt ſpark of vitality?

Our ſentiment is, that the vital principle is a principle diffuſed over univerſal nature, of itſelf formleſs, and alone operative where there is a capacity to receive its influence. It acts upon dead matter, which reacts according to its inherent properties. Both ſtand therefore in the mutual relation of cauſe and effect, and the attraction or relationſhip of theſe two to each other, forms our idea of living power.

We agree with Dr. Dieman in the remark, that "There is not a word more in uſe, to which various meanings are applied, than the word *power*. Power may be conſidered in three points of view, correſpondent with the idea of *possibility*, *agency*, and *necessity*. The firſt implies *inherent* power, the ſecond *operative* power, and the other the *powers* or the *laws of Nature*." This word may therefore be uſed to expreſs the *cause*, the *effects*, and the union of natural appearances as cauſe and effect. Thus, for example, the digeſtive faculty of the ſtomach we call a *power*, although the ſtomach may be deſtitute of food on which to act. Power in this caſe is the cauſe of digeſtion, and it conſiſts in an inactive *capability*. When this power is exerted in the act of digeſtion, and communicates peculiar properties to the food, this is an *effect* of its capacity; and it is now an *operative* power. When we ſay that the ſtomach of every living animal has the power of converting the food adapted to it, into a fluid containing ſpecific properties ſuited to the nature of the animal, no idea of neceſſary operation or law of Nature preſents itſelf. It is ſcarcely neceſſary to remark, that when we ſpeak of abſolute vital power, or of inherent power, in organized bodies, we conſider the term as expreſſive of the ſource or cauſe of *possibility*.

The laſt objection we ſhall mention, urged by the Chemical Sect is, that their ſentiments are founded on the teſtimony of our ſenſes, which in organized bodies preſent to our view nothing but *animal matter*; we muſt otherwiſe admit either an all-vivifying ſoul of the world, or give to each living body its particular ſoul.

This argument, inſtead of oppoſing our ſentiments, ſeems to confirm them; for all their chemical explanations proceed

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no farther than the caufe of *vital appearances*, and are only applicable to living beings already formed. They are confined to the medium or *instrumental* caufe of vitality, and leave us in ignorance concerning the origin of this inftrumentality. Thus we feel ourfelves compelled to attribute to every organized body a primitive germ, by virtue of which each animal, each plant, is able to propagate its kind to infinity, but concerning the fpecific nature or origin of which we remain in the profoundeft ignorance. We may add, that even their fyftem demands an organic germ, to which the foreign fubftance may attach itfelf, in order to produce their animal cryftallization and re-production, and this muft be an organized part of an organized body, in order to have a fpecific affinity with the prepared matter; and confequently, a particular organic germ muft be fuppofed to exift for the production of bone, cartilage, mufcles, ligament, nerve, veffel, inteftine, &c. fince each diftinct or fpecific part can only be the effect of a fpecific cryftallization, or of a cryftallizing organ; and thus we muft afcribe to each of the numerous animal organs, its own particular germ, its own caufe of exiftence: Nay, according to this doctrine, the germs of each diftinct kind of exiftence in Nature muft be in readinefs, and, as it were, in a ftate of flumber, until it is awakened by its own natural ftimulant, and becomes the fpecific germ of fome particular organ. From hence it muft follow, that not only the germs of all the men who have peopled the earth, or that fhall hereafter exift, but alfo the germs of their refpective organs of the lungs; for example, liver, heart, ftomach, mufcles, nerves, of an infinite number of individuals, muft have exifted in miniature in our common parent *Eve!* A confequence too abfurd to be admitted!

We do not hefitate therefore to adopt with *Schelling*, *Sumarez*, and others, the fuppofition of a feparate principle as the caufe of vitality. It is this principle, by whofe energy the various conftituent parts of animal bodies are prevented from an union purely chemical, and preferves living beings from diffolution and putrefaction. It is this power which forms the various materials of the human body into an organized whole, and is to be confidered as the principal caufe of the individuality of every living being. For, in our opinion, the individuality, as characteriftic of every fpecies of living animals, proceed from, and is limited by this invifible principle. But this principle, although it is moft clofely united with the fpecific organization of animal bodies during life, is not, according to our ideas, a conftituent part of organization; nor is it fubject to any chemical changes, but by its uninterrupted in-

fluence

fluence upon organized bodies ſupports life from the moment of their exiſtence to that of their diſſolution. It is thus the primary cauſe of the tranſmutation of rude and ſluggiſh matter into vital and active organs, and the different aliments we uſe, are to be conſidered as unwrought materials, which are operated upon and organized by the living power, according to the conſtitution of different animals. It is the grand operator which changes the acorn into the oak, produces leaves and fruits from germs, and generates ſuch a diverſity of animals with the diverſity of parts they poſſeſs from ſimilar juices.

But although the living power is diffuſed over the whole of the animal frame, and every part poſſeſſes it during life, yet the different organs of the animal have ſpecific powers ſuperadded, by which the particular offices of different organs in animals are to be aſcribed to the particular conſtitution and form of the organ. The liver, for example, the ſtomach, the tongue, and the eye, poſſeſs the common principle of vitality with the other parts of the body; but to the *liver* is ſuperadded the particular power of changing the blood into gall; to the *stomach*, that of digeſting different articles of food; the *tongue* enables us to judge of the ſenſible properties of bodies; and the *eye* communicates to the mind the impreſſions made by external objects on the optic nerves. Theſe different powers become *operative* powers when they are excited to action by the ſtimulus of bodies adapted to their natures.

Theſe ſpecific powers, with their operation, are confounded by the Chemical Sect with its primary cauſe of vitality; whereas they are no other than the effects of the living principle, whoſe influence is indicated by the different organization of various parts; ſo that theſe various organic powers may be impeded, or even deſtroyed, while the living principle itſelf, which preſerves them from diſſolution and putrefaction, retains all its activity.

Though the ſtomach ceaſes to digeſt its food, it continues a living part of an organized being. The ſame is true of the liver, the tongue, and the eye; which in conſequence of their particular conſtruction may loſe much of their peculiar powers, while they retain the common principle of life. The ſeeds of plants, eggs of ſome animals, and the inactivity of others during the winter ſeaſon, and the fœtus in the womb, indicate the ſame fact.

The above remarks may make our ideas of life, and living power, more intelligible. We conſider vitality as the reſult of an union of a peculiar principle with dead matter. This union producing a capability for various offices or functions, gives us the idea of different organic beings which we behold in the

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two kingdoms of organized nature. *Living power*, on the other hand, is the production of the union of various ftimulants with the fum of organized powers. Particular living power, or rather fpecific exertions of living power, is the refult of the fpecific energetic power of a particular organ, and a particular ftimulant adapted to its nature; and is characterized by the peculiar conftruction of the part, and the nature of the ftimulant by which it is brought into action.

Of the various functions of animal life, *respiration* and *nutrition* are the moft neceffary to the human body; for the fufpenfion of thefe quickly becomes the caufe of death. They are both animo-chemical actions, that is, they are operations on which chemiftry has inconteftably a very great effect; but this is fo peculiarly modified by the vital power, that the refult is totally different from what is the natural product of chemical action on inanimate matter. This will appear evident by a minute attention to thefe two functions.

Refpiration is the firft and moft neceffary operation of the human body, the larger number of animal actions are more or lefs dependent upon it. It is by refpiration that animal bodies acquire the quantity of the acidifying principle neceffary to its exiftence. For the continuance of life it is not only an indifpenfible requifite, that the air fhould contain a certain portion of this principle, but that the fame fhould be either mechanically united with other parts of the atmofphere, or that the chemical union fhould be flight. For were the union to be more intimate, the vital power of the lungs would not be competent to the feparation of the neceffary quantity from the atmofphere. Refpiration becomes impeded, or totally fufpended. *Humboldt* adduces feveral inftances of this, where the air refpired contained from 0,26, to 0,27 parts of oxygen. He fuppofes that the principal caufe why carbonic acid gas is fo fatal to animal bodies, is to be afcribed to its intimate union with the oxygenic and the clofe affinity which fubfifts between them.

The two conftituent parts of the atmofphere are oxygen and azote, which are generally united in the proportions of 27 to 73. The reafon why the atmofphere is charged with fuch a preponderancy of irrefpirable air is, according to the opinion of Profeffor Reich, becaufe every indication of vitality is the refult of the mutual action of two oppofite principles; and becaufe that both conftitute the principle of life, though in different points of view. So that the *azote* is the *stimulating*, *sparkless*, and *positive* principle of vitality, and the oxygen is the *moderating*, *restrictive*, and *negative*.

We cannot fubfcribe to his fentiments; the laft pofition is pecularly objectionable. Azote and oxygen are deftitute of

vitality and susceptibility of stimulus, either in their pure unconnected state or in their numerous combinations with unorganized nature; and when the instruments of respiration are rendered motionless by death, neither azote nor oxygen are sufficient to restore vitality to the body. This is a clear indication that these substances possess no vital power in themselves, but that they communicate to the animal body the requisite degree of stimulus: that the oxygen, in particular, is a kind of food adapted to the animal constitution; and that after it has been acted upon by the lungs, and assimilated with the blood, it is to be considered as one of the most powerful causes of preserving organized bodies in a pure and healthy state. The acidifying principle taken up by the lungs is, in fact, equally as destitute of life as the food taken into the stomach; and it is alone by the power of animated bodies, the particular living power of the instruments both in respiration and digestion, that these different substances share in the vitality of the body, and are rendered capable either to improve or support the animal machine.

The principal cause that the atmosphere does not consist of oxygen alone, but that it is mixed with so large a portion of azote is, the stimulating power of the former would be much too strong for the animal œconomy. For although it is the only part which is respirable, and although, at first, it renders respiration quick and easy, yet it would soon, by an access of stimulus, excite inflammation in the lungs fatal to the subject. This fact, which is proved by frequent experiments, is a demonstration that a preponderancy of azote is absolutely requisite; and consequently, that the hypothesis of Professor Reich is destitute of foundation.

But respiration is not the only function upon which animal life depends; there are other extraneous substances, besides the atmospheric air, to be acted upon and united with the vital organs. These are introduced by the different articles of food. Nutrition cannot take place without the separation of nutritive substances into their constituent parts. Of consequence, digestion is an animo-chemical process; and the different secretions and excretions are also chemical operations, of a secondary nature, contributing to the same object.

We readily acknowledge that chemical powers have a great influence upon the process of nutrition. Nay, it appears to us highly probable that the grand object of digestion is to separate the *azote* from the other parts of nutritive bodies; and we are ready to grant, that the result of secretion and excretion consists in specific separations and combinations of the different animalized materials. But that the whole of this is chemical,

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is a doctrine we cannot admit. Neither we, nor unorganized nature, have ever produced the leaſt appearance of animal fluids; and what an infinite number of organs are in continual exerciſe in order to change the food received into the body into animal juices! — A plain indication that nutrition is not a chemical proceſs ſimply, but that it is the reſult of an animo-chemical operation. We diſcover, it is true, by a chemical analyſis, that in moſt inſtances the ſame principles exiſt, but entirely changed in their properties, and in very different proportions. In ſhort, the more we contemplate the great diverſities, and the wonderful effects attendant upon nutrition, the more are we confirmed in our opinion, that although the effects produced are of a *chemical* nature, yet that the operative power is *animal*; otherways, it would be impoſſible that ſimilar and ſpecific fluids ſhould be produced from nutritious ſubſtances of ſuch different and contrary properties. Would it otherwiſe be poſſible that the requiſite quantity of phoſphorus ſhould exiſt in the body of a Gentoo, who lives entirely upon vegetables? How would it be poſſible that the ſame kind of food ſhould be adapted to the ſupport of different living beings and the peculiar organizations of each, and to the generation of their different fluids, if nutrition were a proceſs purely chemical.

What has been obſerved concerning theſe two leading functions in the animal œconomy, is alſo applicable to the others, which are more or leſs dependent upon them. Thus it appears to us that in the healthy ſtate of a living body, the organic power acts the firſt and principal part, to which chemiſtry is ſubſervient; but in its diſeaſed ſtate, particularly in diſeaſes of a certain claſs, chemical laws gain the aſcendancy, and act with ſuperior force.

This is the point of view in which we now conſider the ſubject, and ſuch are the reaſons which have induced us to relinquiſh the opinion we formerly ſupported, and embrace its oppoſite.* We aſcribe to organized Nature a diſtinct or poſitive principle, which does not prevent us from admitting a rational and moderate application of chemical powers to the phænomena obſervable in the animal and vegetable kingdoms.

* See Ontyd on Mortal Diſeaſes, London, 1798.

ACCOUNT OF DISEASES IN AN EASTERN DISTRICT OF LONDON,

From March 20, to April 20, 1802.

ACUTE DISEASES.	
Typhus	7
Pneumonia	3
CHRONIC DISEASES.	
Catarrh	8
Phthifis Pulmonalis	3
Tuffis	19
Dyfpnœa	13
Tuffis cum Dyfpnœa	11
Hydrothorax	1
Pleurodynia	4
Anafarca	3
Palpitatio	2
Apoplexia	1
Paralyfis	2
Cephalalgia	8
Ophthalmia	4
Gaftrodynia	3
Dyfpepfia	12
Vomitus	3
Conftipatio	4
Enterodynia	3
Hæmorrhois	3
Fluor Albus	5
Amenorrhœa	7
Rheumaticus Chronicus	15
PUERPERAL DISEASES.	
Ephemera	4
Dolores Poft Partum	2
Abfceffus Mammæ	1
INFANTILE DISEASES.	
Rubeola	8
Pertuffis	7
Ophthalmia Purulenta	1

The difeafes of children continue to engage confiderable attention. The meafles and hooping cough are ftill prevalent amongft patients of this clafs. The meafles, in general, appear in a milder form at prefent, though, in fome inftances, the difeafe is ftill attended with a confiderable degree of thoracic affection; the cough continues for fome time after every fign of the eruption has ceafed, and in fome patients feems to threaten a more ferious affection of the lungs.

The hooping cough is ftill very prevalent; a confiderable degree of fever frequently attends it, and even where the fymptoms have been mild, the long continuance of them leaves the patient in a very feeble ftate. As the fpring is advancing, a removal into the country, moderate exercife in the air, with the ufe of affes milk, and other articles of diet of a mild and nutritious nature, may afford confiderable relief.

CRITICAL

CRITICAL RETROSPECT OF MEDICAL AND PHYSICAL LITERATURE.

Nouveaux Elémens de Physiologie; i. e. New Elements of Physiology, by ANSELEM RICHERAND. Paris, for Richard, Caille, and Ravier; pp. 700. 8vo. (price 6 livr. 5 s. or about 6s.)

THE author of this work has collected into a very small compass the whole knowledge hitherto acquired in physiology. These elements are composed according to the same view which Haller took, when he made an extract of his great physiology, under the title of *Primæ Lineæ Physiologiæ*; and it is intended to give a short but accurate account of the state of this science. We shall here communicate the plan, which Mr. Ritherand has adopted in this work.

Several naturalists and physiologists have distinguished in men a vegetative or interior, and an animal or exterior life, which division the author has also adopted; but as it comprises the functions of the individual only, he has thought proper to modify it, and to establish two classes of functions: 1. Functions, which tend to the preservation of the individual. 2. Functions, which tend to the preservation of the species. The first class is divided into two orders, the first comprises the functions by which the food is assimilated with the substance of the individual. As the intestines form a character that sets, as it were, a limit between the animal and vegetable creation, it is natural, that in the enumeration of the genera of this order the author should commence with digestion, the phenomena of which he explains, and that those of absorption, circulation, secretion, and nutrition should succeed. In the second order are comprehended the functions, which form the intercourse of the individual with the objects that surround him. This intercourse takes place in three ways; by the senses, which give notice of the presence of bodies; by motion, by which we approach, or remove farther from them; by voice and speech, which form the communication between man and man, without his having occasion to move from his place. Under the article of the sensations, he describes the organs of sense, and explains their manner of action; he gives an account of the brain and nerves; passing from thence to the human understanding, he examines the means by which it acquires its knowledge. An enquiry into the state of sleeping and waking, dreaming and walking asleep, sympathy and habit, conclude this interesting chapter. In the second sub-division, which treats of motion, he considers the organs of motion, that is to say, the system of bones and muscles, the parts by which they are united, &c. To

this

this ſucceeds an examination of their mode of action, in ſitting, ſtanding, and progreſſion. The third ſubdiviſion explains the organs of voice, the manner in which it is produced, its different modifications, its defects, &c.

The ſecond claſs of functions is alſo divided into two orders. 1ſt. That in which the concurrence of both ſexes is neceſſary, which comprehends conception and generation. 2d. The functions which are confined to women, as geſtation or pregnancy, birth, and lactation.

The author has added an Appendix of the phenomena, which appear at the different ages in the two ſexes; of temperaments, and of the different races of mankind. This appendix is concluded by an explanation of the decompoſitions to which the human body is expoſed, when deprived of life, and ſubject to the action of air and water, &c.

Memoires sur l'Influence de l'Air et de diverses Substances Gazeuses dans le Germination de diverses Graines; i. e. Memoirs on the Influence of Air and of the different gazeous Subſtances on the Germination of different Seeds; by Huber and Senebier. 1801. Geneve, for Paſchoud. 8vo.

This publication has ſomething extraordinary in the manner in which it was compoſed. Cit. Huber, who is already known by his work on the bees, is blind, but has notwithſtanding made the experiments which were ſuggeſted to him by Cit. Senebier, in order to determine the effects of the different gaſses, and particularly of the oxygen gas on germination. The ſeeds were placed on pieces of wet ſponge or flannel, under receivers, which were filled with gas. The following are the principal reſults. None of the ſeeds expoſed to azotic gas budded; but did ſo, when afterwards placed in the open air. Their germination was accelerated in pure oxygen gas; but the plants were more vigorous, when it contained a ſmall quantity of carbonic acid. In this experiment the carbon of the ſeed combining itſelf with the oxygen, forms acid carbonic gas. The ſeeds germinated in artificial atmoſpheric air as well as in common atmoſpheric air. The moſt favourable proportion for germination is three meaſures of azote or hydrogen for one of oxygen. Seeds placed in azotic gas did not germinate, even when a tolerable quantity of oxygen was added by degrees, but they germinated very well when the oxygen was added all at once. The cauſe of this difference is, that in the firſt caſe the oxygen is continually employed in receiving from the ſeed the diſengaged carbon, ſo that there does not remain enough to vivify it; whereas, when it is all at once admitted, there is ſufficient for both purpoſes.

The ſeeds did not germinate at all in carbonic acid gas, nor in pure hydrogen: One lettuce ſeed abſorbs in germination a quantity of oxygen, equal almoſt to 26 milligrammes of water; but it does not germinate till the oxygen forms at leaſt one-eighth of the atmoſphere in which it lies. A ſurplus of carbonic acid is more hurtful to germination than that of azote, and a ſuperabundance of

of azotic gas more noxious than that of hydrogen. When seeds germinate in hydrogen gas, the carbon of the seed dissolves in it, and combines itself very intimately with it.

The vapours of sulphuric ether in a receiver full of atmospheric air hinder the germination of seeds, without altering the quantity of oxygen. The vapours of camphor, oil of turpentine, assafœtida, and sal ammoniæ, had the same effect. Putrifying bodies prevent germination by the quantity of carbonic acid they emit. It appears from the above facts, that oxygen is indispensable for germination, that it serves to take away from the seed the carbonic acid which is disengaged by fermentation; this rule, however, seems not to be without exception. In fact, peas germinated in water, which had been deprived of air by all possible means, at whatever depth they were immersed.

Beans, lentils, the seeds of spinage, lettuce, and corn germinated under water with more or less facility, but better in water that contained oxygen, than in that deprived of it. They however, did not germinate in water containing carbonic acid. Acids retard more or less germination. The air emitted from peas under pure water, is a mixture of carbonic acid and carbonated hydrogen.

Peas germinated in pure hydrogen gas, in airs in which other seeds had already germinated, and they exhausted the rest of the oxygen that was left in them. They have also germinated in azotic gas, but they did not germinate in oil, though, if put into oil after having swelled in water, they germinated very well.

These facts are much in favour of the decomposition of water in germination, and consequently in vegetation in general.

Traité de Mineralogie; i. e. Treatise of Mineralogy, by Citizen HAUY, published by the Council of the Mines 5 vol. each of which contains 86 plates. Paris 1801, for Louis.

THIS excellent work, of which the Mineralogists have long been in expectation, answers fully the requisites of a complete Treatise of Mineralogy, digested with method, clearness, care, and exactness, by a man, whose numerous observations have already so much contributed to the advancement of that science, and who ranks so very high amongst the Mineralogists. It is only necessary to read a few pages, to discover the great difference between this work and the hasty compilations with which that science has of late overflowed. In the first volume, and part of the second, Citizen Haüy explains the properties common, to minerals in general; he develops the theory of many properties, which ought to serve as characters to distinguish minerals, characters so much the better chosen as they are essential to the nature of these substances. In the same volume, we find the explanation of his theory of crystallization and the enumeration of the physical, chemical, and geometrical characters that are obvious in minerals. Cit. Haüy has presented, in tables, the classes of minerals, established after the different characters, each considered exclusively; he has separated from the theory of crystallization itself, the geometrical part. In this Introduction he makes likewise

likewiſe known the method he has adopted, and the reaſons which induced him to prefer this method, founded only upon what is well known, to a ſyſtem more complete, but which is frequently under the neceſſity of propoſing as certain what is really nothing but conjecture. He has not therefore heſitated to place in the Appendix, all thoſe ſubſtances which are not ſufficiently pure to be regarded as ſpecies, or ſufficiently known to be placed methodically. In the ſame preliminary Diſcourſe, he gives the rules he has followed in eſtabliſhing his Nomenclature, which is as ſimple, methodical, and uniform, as the ſtate of the ſcience would allow.

The ſpecies are deſcribed in the following volumes, and the hiſtory of each given as exactly as poſſible; they conſiſt chiefly in the ſynonima, the characters, its phyſical, chemical, and geometrical properties; their geographical and geological ſituation, and their uſes. The greateſt part of the Notes reſpecting the geological ſituation, was by Cit. Dolomieu; thoſe relating to the medicinal and chemical uſes are from Halle, Chaptal, and Vauquelin. The figures annexed to this work, repreſenting the various forms of each ſpecies, are made with a care and exactneſs never before attained in this line of drawing; they are done with much taſte by the Members of the Inſpection of Mines, after the ſtricteſt rules of projection.

Anatomie Générale appliquée à la Phyſiologie et à la Medicine; i. e. General Anatomy applied to Phyſiology and Medicine, by Xav. Bichat, &c. 4 vol. in 8vo. Paris year 10, (1801) for Broſſon, Gabon, and Co. Price 16 livres, 50 centimes.

The work here announced, is, according to the author, entirely new in three reſpects; that of the plan, of the doctrine, and of the facts it contains. Cit. Bichat admits twenty-one ſpecies of ſimple texture, (tiſſu), each of which enjoys the ſame properties, has the ſame ſtructure whatever may be their figure or combination with the organs of which they form a part. It is a ſort of analyſis in which the textures or telas, regarded as the elements of the human body muſt be ſucceſſively ſtudied under the name of ſyſtems, an idea which the author propoſes to make known in another work, of which the firſt volume has already appeared, under the title of *Deſcriptive Anatomy*. The organic ſyſtems form two claſſes. In the firſt are arranged the textures (tiſſus), which form the baſes of all our parts, and which aſſiſt mutually in the formation of all the apparatus of life, as, the tela celluloſa, the arterial, veinous, the exhaling, abſorbing, and nervous membranes. The ſecond claſs compriſes the telas, whoſe exiſtence is as it were inſulated, which have a fixed place aſſigned, as the ſyſtems of the bones, cartilages, the medullary, fibrous, muſcular, glandulous, mucous, ſerous ſyſtems, &c. The doctrine of this work conſiſts eſſentially, *firſt*, in the analyſis of the properties and phenomena which the human body preſents while alive, conſidered in the ſtates of health, diſeaſe, and in the means the phyſician employs to bring back the functions to

their primitive ſtate. *Secondly*, in the diſtinction of the two ſorts of life, animal and organic.

There are a great number of new facts which the author confeſſes to have obſerved in his experiments on living animals, and a great part of them are drawn from his reſearches on the tiſſue by means of air, caloric, water, &c. and principally from his ſtudy of the fineſt parts of anatomy.

MEDICAL AND PHYSICAL INTELLIGENCE.

[FOREIGN AND DOMESTIC.]

A NEW PREPARATION OF BARK.

Meſſrs. REECE and DURIE, of Henrietta Street, Covent Garden, have communicated to the Editors a new preparation of the Peruvian Bark, termed by the French chemiſts, Sel de la Garraye, or Sel Eſſentiel de Cinchone; the former from its firſt having been made by the Count de la Garraye, and the latter from its containing the active or eſſential parts of the bark, and its deliqueſcent property on expoſure to the atmoſphere.—This volatile extract is obtained from a cold infuſion of the bark carefully evaporated to a ſtate of dryneſs by ſo gentle a heat that its volatile particles may not be diſſipated or injured; and in order to render its expoſure even to this gentle heat as ſhort as poſſible, the evaporation is directed to be performed on a wide ſurface, as a large earthen plate; and when reduced to a perfect ſtate of dryneſs, it ſhould not be thicker than thin glaſs, and nearly as tranſparent.—The produce of a pound of the beſt pale bark, not exceeding more than 9 drachms, muſt of courſe enhance its value; but 10 grains being equivalent to a drachm of the powder, it will not prove in practice much more expenſive.

The Peruvian Bark as a tonic medicine is more extenſively and ſucceſsfully employed than any other article in the Materia Medica, but through the bulk of a full doſe of the powder mechanically irritating the fauces, ſtomach, and inteſtines, too often produces nauſea, vomiting, or diarrhœa, ſo much to be dreaded in caſes of extreme debility of the ſyſtem as Typhus Fever, &c. In ſuch caſes no other preparation of this valuable medicine affords a proper ſubſtitute. Through the great heat employed by chemiſts (for the ſake of diſpatch) in the preparation of the common extract, its volatile

latile parts are diſſipated, on the preſervation of which its activity depends. The tincture, on account of the quantity of ſpirits retaining a proper doſe of the extractive matter, is in many caſes inadmiſſible. The decoction, by depoſiting its reſin on cooling, and if haſtily made, (too often the caſe by the apothecary's apprentice, or the apprentice's boy) will prove little better than aqua *pura*, while a doſe of the cold infuſion, adequate to 10 grains of the volatile extract, would be more than the ſtomach would retain, or the patient perſuaded to ſwallow.—From theſe great objections this volatile extract is certainly exempt; and after the powder has been rejected or proved cathartic, it may with equal advantage be preſcribed.—It is eaſily ſoluble in either a vinous or aqueous menſtruum; in port wine it forms a grateful tincture; in camphorated julep, an efficacious mixture in ſynochus and typhus fevers; and in ſimple cinnamon water, a pleaſant tonic medicine.—In two caſes of phthiſis pulmonalis, it has been adminiſtered with ſucceſs in checking the colliquative perſpiration and diarrhœa, without aggravating the cough, as the following mixture:

℞. Ext. Cinchonæ volat. ʒj. Tinct. digitalis ʒji. Pulv. g. Arabic. Syrup. papav. alb. aa. ℥ſs. Aquæ anethi ℥jv. M. cap. cochl. ij. larg. ter die.

They have lately prepared a quantity of this volatile extract, which may be examined by any profeſſional gentleman.

They have the ſame preparation of the yellow and red bark, the caſcarilla and anguſtura, in forwardneſs. They have likewiſe juſt expreſſed a quantity of the *oleum e seminibus ricini* without heat, which is free from the unpleaſant acrid taſte and dark colour of the caſtor oil imported from the Weſt Indies.

Composition of Urine.

Mr. Proust, of Madrid, has made ſome intereſting experiments concerning the conſtituent particles of urine, which he found to be the following:

1. *Sulphur*.—The urine contains this ſubſtance, moſt probably generated in the body by the action of the vis vitalis, in a ſimilar manner as phoſphorus, iron, and carbonic acid, which we exhale in perſpiration. Freſh urine blackens ſilver veſſels; and when boiled in them ſmall particles of ſulphurated ſilver are diſengaged. When the urine has been ſtanding for about a fortnight it effervesces with acids, and the ſulphur goes off with carbonic acid; and on applying over the orifice of the veſſel, a ſheet of paper, which has been written on with a ſolution of lead, the traces of ſulphur will be immediately perceived. In order to be quite ſure of the colour communicated to the lead having aroſe from ſulphur, and not from the oily vapours which are diſengaged during the fermentation, Mr. P. wrote, on the ſame ſheet, with a ſolution of antimony and tin, but the letters became yellow and brown, in the ſame manner as

as when the oxyds of thoſe metals are expoſed to ſulphurous vapours.

2. *Carbonic acid* is obſerved in great abundance in the urine, from which it ſeparates on its being diſcharged. It is owing to the preſence of carbonic acid, that on evaporating the urine, an ebullition is perceived, ſometimes ſo violent as to make it boil over.

3. *Ammonia.*—When urine is expoſed in ſummer to the action of the atmoſphere, for about a fortnight, the ammonia increaſes conſiderably, and a few drops of ſulphuric acid occaſion an ebullition in it, and carbonic acid with ſulphur is diſengaged; but when the veſſel is ſhut againſt the contact of air, the urine never undergoes any change in all ſeaſons, as the atmoſphere contributes to the generation of ammonia by means of the azote with which it is impregnated.

4. *Carbonat of Lime.* — When urine is preſerved in new veſſels, cryſtals begin to adhere to their ſides; they are of a priſmatic form, and fall to pieces in open air; they conſiſt of carbonat of lime, a ſubſtance which is alſo diſcovered in calculous concretions and in bones. Mr. P, however, could never find any ſulphat of natron in the urine.

5. *A roſe-coloured ſubſtance.*—Thus Mr. P. calls the ſubſtance, which is depoſed in the urine during ſeveral febrile ſtates, after it has become cold and known under the name of lateritious ſediment. In a ſound ſtate of the body this ſediment is not frequently obſerved, partly on account of its great ſolubility in water, and partly on account of its affinity to the ammonia, by which it is kept diſſolved in cold urine; but in a febrile ſtate, where it is more abundantly generated, it eaſily ſeparates, and is found to adhere to the ſides of the veſſel: perhaps the urine is not ſufficiently provided with ammonia to keep it diſſolved. On heating the urine the ſediment diſſolves again; but when it falls to the bottom of the veſſel it is always mixed with uric acid and phoſphat of lime. Alkalis may be ſaturated with the roſe-coloured ſubſtance, but never produce cryſtalliſations with it; from this combination, however, it is ſeparated by acids, exhibiting a yellowiſh powder. On pouring a few drops of nitric acid to freſh urine, a precipitation enſues, conſiſting of nitric acid and the roſe-coloured ſubſtance, while the phoſphat of lime remains diſſolved in the liquor, from which it may be precipitated by alkalis. It is probable, that as the lithic acid and the roſe-coloured ſubſtance are at the ſame time ſeparated from the urine, they are diſſolved by ammonia or any other alkali, in a ſimilar way as the phoſphoric acid keeps the lime diſſolved as phoſphat of lime. The lithic or uric acid being leſs ſoluble in water than the roſe-coloured ſubſtance, may be eaſily ſeparated by pouring hot water on the ſediment, and waſhing it ſeveral times on the filtre, and that acid will remain; it is beſides eaſily diſtinguiſhed by its grey colour, cryſtalline appearance, and the horny ſmell which it yields on being moiſtened. The roſe-coloured ſubſtance could

could never be traced in urinary calculi, at least those that were examined by Mr. Proust.

6. *Acetous acid* is discovered in the urine, but in very little quantity, when it is inspissated; or by mixing one part of fresh urine with a little sulphuric acid and distilling the mixture; the water that goes over at first has a particular smell, to which succeeds a sourish liquor, smelling like vinegar. In order to obtain this acid in a greater quantity, drop, by degrees, concentrated fulphuric acid into fresh urine which has been previously inspissated, and after having freed it from the salt cuticula; dilute it to the consistency of a thin syrup; this mixture being exposed for some days to open air, exhales a very characteristic odour of vinegar, becomes of a lighter colour, and deposits crystals on the sides of the vessel, and on the bottom a resinous substance. On distilling the liquor by a gentle fire, after a previous separation from the sediment, a considerable portion of this curious vinegar is obtained, of which the residuum yields still a little, by repeated distillation. In order to ascertain the identity of this liquor with vinegar, the following experiment was thought decisive. A portion of this acid was saturated with carbonat of copper, which gave a green solution, and on being distilled, a considerable quantity of grainy, not liquefiable, concretions of a green colour were obtained; which, though different from true acetat of copper, yielded by means of sulphuric acid, and by distillation, an acid as penetrating and agreeable as vinegar, so that we have every reason to think its elementary particles the same with those of acetous acid.

7. *The resin which colours the urine.*—During the distillation of the abovementioned acid, a kind of resin separates, resembling extremely, with respect to consistency and smell, the resin of castoreum. It is easily soluble in alkohol, from which it is separated by water, in which, however, it shows a degree of solubility, like the resin of gall, which makes us conclude that it is the same with it, and that its particular smell and colour is owing to the admixture of other parts of the urine, and it is, in all probability, the substance from which the colour of the urine originates, and seems to be the same with the urée, lately discovered by Fourcroy and Vauquelin.

Acetic Acid.

The following new and simple method of preparing radical vinegar, or acetic acid has lately been published in the *Annales des Arts et Manufactures*:—Take any quantity of white vinegar, concentrated by the frost, and pour to it half as much concentrated sulphuric acid; then distil the mixture in a sand bath till the vapours of the sulphurous acid began to appear, when a light and strong scented liquid is obtained, which, however, requires to undergo a second distillation before it is the real acetic acid. It has not yet been ascertained, whether the expence incurred be greater or less by this, than by the common method of obtaining radical vinegar, in which the acetite of copper is used. But it is certain, that acetic acid obtained by the new method may be used without the appre-

hensions

henſions excited by that ſold commonly in the ſhops. The French chemiſt warns the ladies, who uſe it as a luxury, to reflect, that, when reſpiring its odour, they introduce into their lungs more or leſs copper, one of the moſt powerful poiſons; at the ſame time he urges them to diſcountenance the former proceſs, in order to introduce the acid made by himſelf.

New Metal—Mr. HATCHET has diſcovered a new metal, or at leaſt an acidiſiable oxyd, in the analyſis of a mineral from North America. It promiſes to be a uſeful diſcovery, as it affords orange and green coloured precipitates of great beauty and permanence. Mr. Hatchet propoſes to call it Columbium. In external appearance this mineral reſembles chromate of iron.

Preſervation of water.—The Society for the Encouragement of Arts, &c. has awarded a gold medal to Gen. Bentham for a new method of preſerving water perfectly ſweet during long voyages. The experiment was tried on board two ſloops of war, the Arrow and the Dart, and appears to have terminated in the moſt ſatisfactory manner. Inſtead of the ordinary ſtowage in caſks, fixteen tanks or caſes, adapted to the ſhape of the hold, were placed in each veſſel, and filled with about forty tons of water, by means of which the water occupied much leſs room in the ſhips than it would have done if caſks had been made uſe of. The tanks were made of wood, accurately lined with ſheets of tinned copper, all the junctures of which were ſecured by ſolder, ſo that the water was no where in contact with any thing but the ſurface of tin. By way of compariſon, about 30 tons of water were ſtowed on board each veſſel, in caſks as uſual. The water in all the tanks on board one ſhip, and that in thirteen of the tanks on board the other, was uniformly found to continue as pure as when it was firſt taken from the ſpring: that which was contained in the other three tanks was more or leſs tainted, as that in the caſks was. After the water had remained on board a ſufficient length of time, it was uſed out, and the tanks repleniſhed from time to time; but in ſome of the tanks, the water was allowed to continue three years and a half; 25 gallons of which, being ſent to the Society, was found to be ſtill wholly unaltered.

Mode of cleanſing water.—The water in Paris, and many parts of France, is intolerably turbid and foul; the following is a method adopted to filter it in large quantities:—In conſtructing a well of five feet diameter, the excavation ought to be from 12 to 15 feet. A falſe well is made, 10 or 12 feet in diameter; in the middle of this the real well is conſtructed in ſuch a manner, that the water may filter through the interſtices left between the ſtones which form the outſide of the inner well; the falſe well is then filled with ſand and pebbles, ſo that the water muſt firſt filter through them before it reaches the real well. This method has been found to produce great plenty of water, perfectly clear and free from all extraneous matters.

Electricity.

Electricity.—From a ſtatement of the experiments made by the Rev. Mr. BENNET on the electricity produced by the contact of metals previouſly to the year 1789, and alſo of thoſe made by Mr. CAVALLO previouſly to 1795, Mr. NICHOLSON draws the following concluſions:—1. That the contact of one metallic ſubſtance with another generally produces electricity; 2. That the quantity and quality of the electricity ſo produced are various, according to many circumſtances which ſeem to occur in the product of it, or in a great meaſure to influence it; 3. And that theſe circumſtances are the various nature of the metallic ſubſtances, their various degrees of heat, the ſtate of the atmoſphere, the hand of the operator, &c. each of which cauſe has its ſhare in the reſult.

Suppoſed Diſcovery of the Mode of rendering harmleſs the Poiſon of Serpents.—It is well known, that in Egypt, India, and the hotter parts of America that abound with poiſonous ſerpents, there are certain individuals, who poſſeſs the power of entirely diſarming theſe formidable animals, and are able to handle them with perfect impunity at the very time that any other perſon, approaching them incautiouſly, would be fatally convinced of their ability to deſtroy. This happy exemption is attributed by the people themſelves to the preſervative effects of certain vegetables, the knowledge of which has hitherto been carefully concealed. Many of the European philoſophers have, however, treated the affair as a mere juggle. This ſtate of uncertainty is now, happily for humanity and ſcience, relieved by the moſt important communication from Don Pedro d'Orbies y Vangas, through the medium of Count Rumford, which, if entirely to be depended upon, will entitle the communicator to rank high among the benefactors of mankind. Don Pedro is a native of Santa-Fe, and, in the year 1788, being at Margarita, he met with a ſlave who poſſeſſed the power of charming the moſt venomous of the American ſerpents; after the Negro had exhibited his ſkill, he was induced by a reward to promiſe to diſcover his ſecret. The next morning he returned with the leaves of a plant, called *vejuco du guaco*, and having bruiſed them, in the preſence of Don Pedro, gave him two large ſpoonfuls of the juice to drink; then making three inciſions between the fingers of each hand, he inoculated the Spaniard with the ſame juice, and performed a ſimilar operation on each foot, and on each ſide of the breaſt, after which he informed him that he was no longer acceſſible to the poiſon of ſerpents. Don Pedro then, after making the Negro anſwerable for any ill conſequences, took into his hands ſeveral times one of the ſerpents that had been brought by the ſlave the day before, without receivtng the ſmalleſt injury from the animal. Encouraged by this firſt attempt, two domeſtics, being in like manner prepared by the guaco-juice, went into the fields, and ſoon returned with another kind of ſerpent, equally venomous with the former, without ſuſtaining any hurt; another perſon, being ſimilarly prepared, and afterwards bitten by

by a poisonous serpent, received no further injury than a slight local inflammation. Since this period, Don Pedro has repeatedly caught serpents with his own hands with absolute impunity, employing no further preparation than merely drinking a little of the guaco-juice. The plant, whose effects are thus attested, has not as yet been admitted into any botanical system, but is amply described in a memoir by the Spanish gentleman already mentioned, inserted in a weekly paper published at Santa-Fe. It is of the compound-flowered or syngenesious class. The stamina are five in number, united by their anthers into a cylinder, through which rises the pistill with a deeply divided summit. The corolla is monopetalous, infundibuliform, with five indentations, and of a yellow colour; each calix contains four florets, and several of these grow together, forming a corymbus: the seeds are broad and feathered; the root is fibrous, perennial; the stem straight, cylindrical when young, but, when old, becomes pentagonal: leaves are heart shaped, opposite, of a dark-green mixed with violet, velvetty on the upper surface. It grows by the sides of rivulets, and in shady places, in the viceroyalty of Santa-Fe.

Culture of Exotics in Corsica.—It is about a year ago since the French government caused to be transported to Corsica a collection of exotic vegetables, which were furnished by the Museum of Paris, and selected from such as appeared the most likely to become inured to the climate of that island, and to be, at the same time, the most useful to the arts and to the commerce of the inhabitants. Citizen Noisette, gardener, was appointed to attend them, and to superintend their culture. In a letter addressed to Citizen Thouin, and dated Ajaccio, the 10th of Brumaire last, he gives a detail of his first successes. Almost all those vegetables are turned to good account; they were planted immediately in a platform or mount, and this transplantation does not appear to have diminished their vigour; on the contrary, their growth has been sensibly observed during the first year. Among the trees which compose this vegetable colony, we distinguish the sweet-acorned-oak, the false accaia, the cytisus of the Alps, the jujube-tree *(le jujubier)* the Judæa-tree *(arbre de Judée)* the *goyavier*, the indigo-plant (*l'indigotier*) the cotton shrub, the sophora of Japan, the *plaque minier*, of Virginia, and the bean-plant of China (*fevier de la China*.) Among the plants we reckon the nopal of cochineal, the pit-aloes, different species of *arum*, of *asclepias*, of *geranium*, of *solanum*, and of *belladona*; some of which are useful in the arts, and others in medicine. The multiplication and naturalization of these vegetables, all foreign to Corsica, will, doubtless, call for much care and constancy; but every thing may be expected from the experience of the gardener to whom they are entrusted, especially if he shall obtain from the administrators of that island, as there is no reason to doubt, the necessary assistance to accomplish this design.

Improved

Improved Edition of Lagrange's Chemiſtry.—There has lately appeared at Paris the ſecond edition, conſiderably augmented, of A Manual of a Courſe of Chemiſtry; or, the Elementary Principles, in Theory and Practice, of that Science, by Citizen BOUILLON LAGRANGE. This new work, however, muſt not be confounded with that which appeared about two years ago, under the ſame title, as it differs eſſentially from it, both in the plan which the author has adopted, and in the manner in which he has executed it. In his firſt Manual, Citizen Bouillon Lagrange only intended to preſent exact deſcriptions of all the proceſſes, by means of which ſuch other reſults were to be obtained. The avidity with which that work was brought up, quickly demonſtrated the public conviction of its utility. The firſt edition being now entirely out of print, the author has judged it neceſſary to publiſh a ſecond; but wiſhing to render it more intereſting, he has made it his buſineſs to add ſome illuſtrations, which appeared to him proper to favour the ſtudy of chemiſtry, and to accelerate the progreſs of that ſcience.

Mr. HEY, ſenior-ſurgeon to the General Infirmary at Leeds, has now in the preſs a volume of Obſervations in the Practice of Surgery, illuſtrated by caſes.

Dr. JOHN MURRAY, Lecturer on Natural Philoſophy and Chemiſtry at Edinburgh, has made a great number of experiments to aſcertain whether fluids be or be not conductors of caloric. The experiments which he has laid before the public are very curious, and ſeemingly made with great accuracy, and are ſufficient to controvert the opinion advanced by Count Rumford, that fluids are non-conductors of caloric. We may in a future communication, expect the detail of a ſeries of concluſive experiments made to determine the point.

Dr. MARSHALL, who for the two laſt years has been extending the Vaccine Inoculation through the Britiſh poſſeſſions in the Mediterranean and through the ſouthern part of Europe, has lately taken up his reſidence at Paris.

To CORRESPONDENTS.

We are not inattentive to the friendly hints we have received respecting personalities in Controversy. Some of our readers are so unreasonable as to desire the Journal to be made subservient to their particular pursuits; they cannot be surprised *at our refusing to comply with such requests. We have no doubt that the communication on Cynanche Trachealis, in this Number, will impress all Practitioners with the importance of a periodical Publication which lays before the Profession,* monthly, *every new Discovery, and gives the* earliest notice of every EPIDEMIC.